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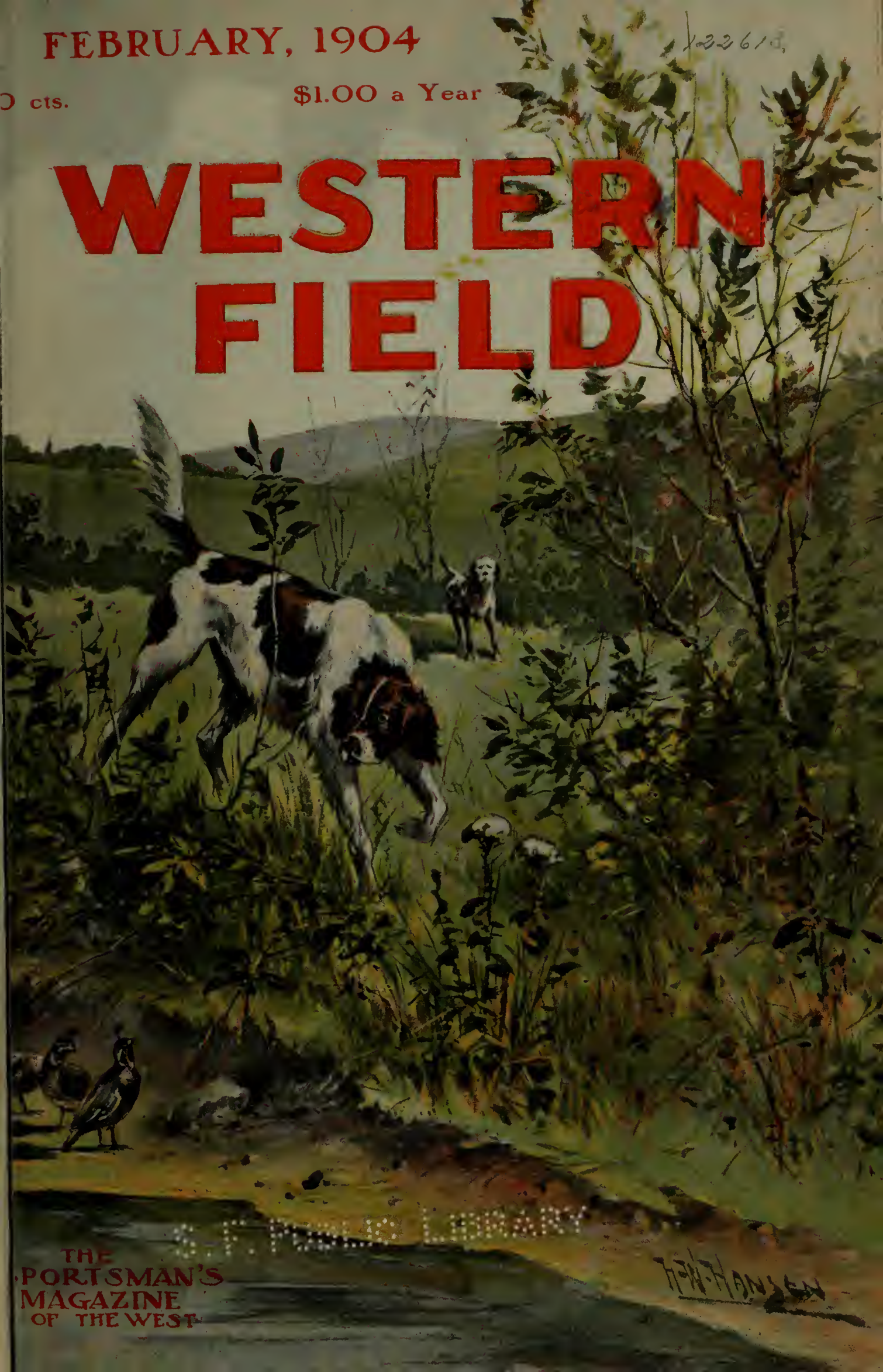

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OUT OF THE FROZEN NORTH.

WESTERN FIELD.

VOL. 4 FEBRUARY, 1904. NO. 1.

THE STICKEEN RIVER COUNTRY.

(MOOSE, CARIBOU AND BIG HORN SHEEP HUNTING IN CASSIAR DISTRICT, B. C.)

By C. F. MULLINS.

PART I.

MR. ALEX HAMILTON of San Francisco and the writer, having hunted together and killed elk, antelope, bear, mountain sheep, deer, and other small game, after inquiry decided to go to British Columbia for moose, caribou and big horn sheep and selected the Cassiar District, the northwest corner of British Columbia a little south of the Yukon Territory; to reach it you must go to Wrangel, Alaska, and up the Stickeen River to Telegraph Creek, about 157 miles. The river, on account of rapids, sand bars, and so forth, is only navigable during June and July for stern wheel steamers of light draft carrying 60 to 75 tons freight, and as that season is too early for hunting, the only means of ascending the river is by canoe, the up trip taking, according to the condition of the river, seven to ten days and two or three days for return; the down river trip must be made not later than the end of October or you will get locked up for two or three months until the river ice is safe for getting out on dog sleds, commencing anywhere from the first to the end of January.

As this country should be better known to sportsmen looking for big game, we decided to make some notes and publish a brief sketch of the trip for the benefit of others.

We had written to Mr. Bronson (in charge of the Customs at Wrangel) to make arrangements about a canoe, but we found the Indians in what to us seemed a doubtful and indifferent mood about going, but it was only a part of the usual method with them. A certain amount of pow-wow had to be gone through with and it was "talkee, talkee," for quite a while, dickering as to price, rations, time, and so forth. The captain and owner of the canoe, John Bradley, not being very good at English, needed an interpreter, but finally terms were concluded. I want to say here that I never found a more painstaking, hard-working man of his word than John Bradley; he knows every foot of the river and can negotiate all the bad places so well that you can soon feel at rest. The canoe was about forty feet long, beam about 5 feet, steering oar 19 feet, rowing oars very heavy, length 14½ feet. The crew consisted of John's partner, big "Charlie," as stroke, "Leo" (a youth of eighteen taking his first trip up the river). "Oscar" (a giant in strength) at bow oar, and "Joe," who seemed to know the river as well as any of them. All the foregoing were Indians, the only white man being Frank Murphy (cook) who we found very obliging and willing. He had roved all over the country from Mazatlan to Nome and followed a large line of occupations.

It was late before we got away next day, nearly 1 p. m. About the mouth of the river Oscar went up a small creek and in a few minutes returned with three salmon he had caught by hand. We camped at 6 p. m. in a very uncomfortable location in high wet brush. It rained hard all night, but the wedge-shaped tent of ten-ounce army duck proved tight and remained so throughout the trip. When we started about seven next morning it was still raining. We began to feel the force of the current but had a

"LARRY."

chance to sail a few miles, poling the boat over the shallow places. The Indians wanted a porcupine which they saw in a tree near the river bank and Hamilton shot it for them. At lunch time they threw its heart and liver with the roughly rinsed out stomach and some of the meat into a pot and made a stew which, from the short time it boiled, seemed only half cooked. In the afternoon Oscar quit rowing quite a while, saying his stomach was sick. While at lunch we counted ten very high waterfalls, the mountains around rising very steep almost from the river bank, with summits nearly all snow covered, and from three to four thousand feet high. Bear tracks were very frequent along the mud of the river bank.

A short distance above "Fifteen Mile Island" we came to the first glacier running right down to the river; it reminded me of the Mer de Glace at Chamouni, and on asking Hamilton what it put him in mind of, he at once said the same thing. Bald and grey eagles were very plentiful, and we saw three at one time sitting together on a sand bar. The weather was clear during the afternoon, and the current got stronger. We passed through a few small whirlpools in one of the rapids very cleverly, John steering the boat right to the edge of the circle that headed up river, thus getting benefit out of an obstacle. We camped that night on a sand and mud bar—mostly mud—on which bear tracks were numerous. It again rained heavily during the night. Next day we made fairly good distance before lunch, most of the time poling up the sloughs to avoid the strength of the current in the main river. In the afternoon we saw, by the aid of glasses, seven mountain goats in what seemed an inaccessible place; at any rate it would have taken an entire day to find out. We passed the mouths of the Kahtate and Iskoot Rivers during the day, which lessened the width of the Stickeen, but did not diminish the swiftness of the current, and camped on Buck's Bar, opposite the Great Glacier, which is 150 to 200 feet high on the face and three miles in width. It has not been surveyed to its finish, but is known to extend twenty miles back from the river. A few years ago three men tied up their canoe at the foot and went back to prospect; their boat was found but not one vestige of the men was ever discovered. There was a cold rain during the afternoon; we had the choice of mud, rocks, or wet sand to pitch the tent on, and chose the latter.

We started next day at 7:20 a. m. and saw the first flock of wild geese on the river. Taking a shot at them I found the ivory point on the front sight of my rifle broken off—rather a bad outlook in case of close shooting in poor light. Eagle Peak, which from its height and contour is quite imposing, was passed before lunch, and the afternoon found us at Mud Glacier, to the north of which are some very sharp peaks; the afternoon was pleasant but the morning cold and wet. We made camp on British soil near Porcupine Creek where we were greeted with swarms of mosquitoes and black gnats and had to put on a mosquito hat for protection. The gnats bit my hands badly, but Hamilton got off lightly as he used some preparation he had that was quite effective in keeping them off, and

which he had offered me, but I forgot to use; we had to light a smudge fire in tent to drive them out, which, with the night turning cold, left us in comfort. We could not help noticing that after extra hard pulling, lining or poling, overcoming some difficulty at which a white man would be chafing or swearing, the Indians were laughing like children and enjoying it as though it were a joke.

We were up before five for an early start as Captain John protested at our not getting away earlier, but what with fussing after clean clothes and so forth the time got along and it was after seven, as usual, before we were under way. At 11 a. m. we passed Hudson Bay Flat where the company used to have a store in earlier days; getting quite a strong breeze we set both sails, wing and wing, yet with both drawing well and all the men poling we could hardly hold our own in some places, and in one were driven back; it was about a couple of miles above the Flood Glacier. Fortunately there is a sand bar one side or other of the river here so that one can pole or rope up a great distance, but one always loses ground when crossing the river from side to side. This day was fine with the sun shining; we had the same old choice of sand, mud or stones for camp on a river bar, but on these bars can always be found dry drift wood for cooking and camp fire, which is important where all the timber is too wet to burn. The evening was pleasant with the stars shining, but the gnats got their work in on me again.

"DENNIS."

In chatting with the cook this evening he told us of the '98 excitement on the river. He was here at that time and says there were over 5,000 people at Wrangle, all bent on getting up the river to Telegraph Creek or Glenora, twelve miles below. They went up mostly on the ice in the early spring, mainly with dog sleds at fancy prices; two men started up with wheelbarrows. The difficulty, of course, was food and blankets to be packed along; only a small proportion got up and they lined the river with caches where they left provisions and things they could get along without by depriving themselves, and which they were weary of packing. In the spring all sorts of canoes, boats, scows and so forth were started, and between thirty and forty men were drowned. When the water got high enough a number of low draft steamers took passengers up, and at two places they used, in addition to their usual motive power, wire cables attached to windlasses on board to haul themselves up against the current. Steamers were paying $10.00 per cord for wood a little later, but at that time they hauled up at some convenient place, handed out axes to the passengers and told them if they were in a hurry they must get out and chop wood for the steamer—and they did it. During the winter one man brought in forty goats for transporting passengers up the rivers by sleds, and tied them up at night on arrival at Wrangel to the piles of the wharf; the rise and fall of the tide is large here, and in the morning he found nine of his goats drowned; the balance turned out failures as their sharp hoofs cut too deeply into the snow-incrusted ice. Here we saw with the glasses a couple of mountain goats very high up. Started 7:15 a. m. A pleasant warm day; gnats still bad, but the

mosquitoes gone. We passed the wreck of a steamer on a sand bar, and while at lunch saw five goats with our glasses. If we have time will try for some on the way down.

In the afternoon Charlie and Joe went fishing for salmon, going back a little way from the river to a small creek and some pools that had been left at time of high water in the river. Hamilton and I went along and found the tracks of a good sized bear and two cubs that had been fishing there quite recently. The fishing tackle consisted of a pole, say fourteen feet long, with a large hook fastened at the end of the pole, the point facing outwards (no barb on point), the hook was about nine inches long on the shank and the point stood three inches from the shank and about four inches long from the curve. It was fastened to a double piece of cord; the ends at the hook and the bight on the pole about eighteen inches from the end, the knot used being the same as that used by sailors in fastening ratlines to a shroud. At the extreme of the pole, a slot was cut in which the end of the shank was put. The Indian, when he saw a salmon, crept stealthily as near as he could and then darted pole and hook at the fish and usually struck it. The struggling fish disengaged the hook from

FIRST VIEW OF TELEGRAPH CREEK.

STRANDED.

the slot and once on could never get away, the hook going through the body.

Camped at 6 p. m. with rocks and sand mixed together, and bear tracks all over the bar. Found just about sand enough to pitch tent on, after levelling ground off with shovel, but had to get rocks to tie end ropes to, as we could not drive stakes in the rocky ground. The wind was pretty strong; we could hardly keep fire from blowing away, and had a hard time cooking, weighting the covers of pots and pans with rocks to hold them on; the sand was carried into everything and later on we had to weight edges of tent with boulders to keep it from blowing away.

While writing up my notes as the light was failing, the cook said, "What is that noise?" On its being repeated we at once recognized the bawl of a bear. I dropped everything in a hurry, and ran to the tent for my rifle, and by that time Hamilton and the Indians were after theirs. In a minute or so we saw on the other side of the river three bears swimming down stream and five rifles at once opened fire on them. It might have been the battle of San Juan Hill over again from the noise, but a bear's head in the water, floating down stream at long range in a swift current, is not a good mark. I think thirty shots at least must have been fired, and as the she bear left the other two (cubs) and climbed out of the river, we all came to the conclusion she was hit. The

cubs got out about fifty yards lower down and one of them fell back in climbing over a log as it got out, probably also hit. We could not all have missed at that distance, in spite of the fading light. The old bear was rattled and hung back in climbing out of the river, and also hesitated as to direction of going into the brush. She bawled twice when in the brush, the second time quite faintly; she might have been calling her cubs or was losing strength from wounds on second call; I think the latter. We all decided to cross the river in the morning and look her up, but oh, "What a difference in the morning." We none of us had the nerve, or to put it better, the foolhardiness to look up a wounded grizzly in the brush. The cubs were very large.

The wind continued and as it dried out our wet tent, it flapped considerably, which, with the bear tracks all around, the probability of a wounded grizzly or cub, and perhaps both, on the other side of the river, and sundry noises of the night, made it a little uncanny for a while, but we soon fell asleep.

When just about ready to start next morning, I being already seated in the canoe, and the others coming along bringing their rifles, Indian Charlie pointed out something to Hamilton. The others looked and started, so I was out of the canoe with my rifle as quick as I could, and followed up over the rough and large stones. Hamilton and I were handicapped with light-soled rubber shoes, so the Indians got ahead and opened fire on a black bear, firing without any deliberation, their object seeming to be to keep the air full of bullets. As the Indians were in the line of fire, we could do nothing but wait until the bear reached the edge of the brush, about 250 yards away, and we each got a snap shot, both missing; we waited around for a couple of minutes while the Indians were looking for a blood trail, when out of the brush came the head of another bear. At the chance of alarming it, I called to them "Let it come out!" but no, bang! bang! bang! went the three Indians' guns, and the bear went back into the brush before it had gotten out more than half way. To say we were both disgusted at such methods of bear hunting is to put it very mildly. Young Leo had run up a small slough back of the brush the bear went in, and got a snap shot. Either Hamilton or myself, separately or jointly, could have made sure work of killing the first bear with a standing shot by stalking it to 100 or 150 yards, which could easily have been done.

We then started on the trip up river and reached the cañon about 10 a. m. It is about fifty feet wide and three-fifths of a mile long, and at high water develops a very swift current which sometimes takes two to three hours to negotiate; fortunately a strong fair wind came up, and with both sails pulling hard we got through in twenty minutes. It was not until we reached

LEAVING WRANGEL.

the upper end of the cañon that we realized the strength of the current, which was churning up in great shape. Indian Charlie was steering, with Captain John advising. The sail, time and again, was almost touching the wall of the cañon as we crept along the sides to get all the advantage we could of the water. I have done all sorts of boating and yachting in all kinds of waters, and the handling of this canoe was one of the best things of the kind I ever saw. A little while after getting through we saw a bear ahead of us, but he also saw us and took to the brush before we got in range.

Coming to a proposed camping place on a mud bank in wet brusn we were about to

A FAIR WIND.

rebel, but on climbing up found Captain John doing the best he could for us, cutting out brush to make room for the tent; so we went to work slashing brush, and thereby nearly ended my trip, for I cut through my shoe and outer sock (I was wearing two pairs). Fortunately no further damage was done. Prior to making camp we passed through a slough of the Grand Rapids which we could not quite make at the first attempt; we were rushed back once, but the men got foothold and roped her through.

Starting about 7 a. m. next morning, we had a strong head wind and heavy rain, very cold and disagreeable; we had hard pulling for a while, then got a chance for a long spell of roping, and we all got out and tramped along to get our blood into circulation. Here we were out of the high mountains, the hills being but about 500 feet high. When it cleared up we found the storm had put snow on the highest of their tops. Passing a couple of places used by Indians for drying salmon we saw a flat bottom boat and a Peterboro canoe hauled up on the shore near a log cabin. We shouted, but saw no one; a few minutes later we caught sight of two men standing back in the timber. Joe said they were white men who were working a claim they had back on the hillside. They were not curious as to the outside world, as they did not hail us. They were the first people we had seen since leaving the mouth of the river a week ago.

A couple of miles further along we met a stalwart gray-bearded man tramping along with a pack on his back and an axe to cut his way through trouble, and a dog at his side for company. He was going to a quartz claim he had been prospecting for five years, and had been to Glenora, fifteen miles distant, to get some flour and other provisions. We wished him good luck, and he most certainly deserved it. In the afternoon we passed through Dutch Charlie's Riffle, about one-half mile long, with rough swell current about ten miles an hour. We roped through, the men pulling like fiends, doubled up against the ground at times with feet braced and hands holding on the rocks to prevent canoe getting away with them. Once I thought the boat would surely get away, adding a few more to the river's victims, as canoe and all would have gone with them. We pushed along for Glenora, and hoped to reach it that night. Leo (the youth of eighteen), showed signs of fatigue after the hard day's work, roping nearly all the time, walking and slipping over rough stones which formed three-quarters of the distance, but he is full of grit, and declined the men's suggestion of getting in the canoe and resting a while.

The country continued to open up. It rained very hard that afternoon, cutting into my face so that I buried my head inside my rubber coat. We had killed several porcupines on the way up for the In-

TELEGRAPH CREEK.

dians; one remained in the bow of the boat, perhaps by way of delicatessen, but it was getting so ripe that without consulting the Indians I threw it overboard. Had it been cleaned it would have kept several days.

We arrived at Glenora about 7:45, very cold, and by the time we had exchanged salutations with the Canadian Customs official, Mr. Ellis, his wife had mixed a stiff hot brandy for us, and they were kind enough to let us use an empty store to sleep in. Glenora is a played out river town; buildings all log built, and with few exceptions vacant. There is only one white family besides Mr. and Mrs. Ellis, and about forty Indians, nearly all absent at present, having started on their winter's hunt for furs. In the morning we met an Indian hunter, Larry Martin, who said Hyland of Telegraph had spoken to him about going with us. I liked his way of talking and generally he impressed me favorably, and we told him we would engage him if Hyland had not already secured two men, so he said he would walk over in the afternoon (twelve miles) and may be he would go. There is a very shallow place just above Glenora, so to lighten the canoe Hamilton, the cook and myself walked up the trail between Glenora and Telegraph about a couple of miles; the brush was wet. At Glenora we saw two old rifles, Hudson Bay Company pattern, very long barrels (one percussion cap, the other flint) about sixteen bore; they were very light and could not have stood a heavy charge of powder. No wonder the grizzly often got the best of a fight in those old days.

At Telegraph we arranged to take Dennis along as chief guide, also arranged with Larry, and found we could get six pack and two saddle horses as arranged by prior correspondence. In coming up the second rapid below Telegraph we had a very strong, fair wind, both sails drawing their best, the men poling their hardest, but twice the water rushed us back; the third time after getting into slack water the men took all the length of rope there was in the canoe, and we set sail again, and they lined out farther away, and we got through. At a conservative estimate in one part of this rapid the boat was pulled up the water like climbing a slope, at least five feet in a distance of seventy feet. When one bears in

EN ROUTE TO HUNTING GROUNDS.

mind that this river rises 640 feet in 157 miles, and that many parts of it are level, the force of the rapids at some places must necessarily be great. We slept in a room over Hyland's store, using our own sleeping bags. Mr. Hyland gave our cook the use of his kitchen, and in every way was very kind and accommodating.

Telegraph has three stores; the Hudson Bay Company, Hyland's, and Calbreath's. Judge Porter has a large district, and has his headquarters here. He is assisted by Constable Drummond, a very superior man for the position. Mr. Simpson of the Dominion Telegraph Co. was more than kind to us, and seemed able to do anything; in many ways he helped to make us comfortable, and fixed up a spare sight that Hamilton had so that it did excellent service in replacing the one I broke. Mr. Hyland gave us mountain sheep for dinner and grouse for breakfast.

We were up early, hoping to get off restocked for the trail and hunt, but some of the horses had gone astray. They had to be found and shod, but were promised for early morning next day. The only white people at Telegraph are practically those connected with the houses previously named, the balance being Indians, most of whom had already left for their winter hunt. Dogs were everywhere, but we were

PACKING OUT HEADS AND HORNS.

told those we saw were only a fraction of them, the main body of them having gone out with the Indians, packing from thirty to forty pounds each, and hauling sleds with skins, and so forth, in on the snow after the hunt.

Up early again next morning, but not a sign of horses. They finally arrived about eleven, and we started a little after noon on the Teslin trail which was made by the Dominion Government in '98, after the rush had set in for the Klondike, of which I shall speak later. We found the trail as far as we went on it (nearly seventy miles) an excellent one, all the marshes and bogs corduroyed and smaller streams bridged; it has not been kept in repair of late, travel not justifying it, but is still very good. Between all settlements, even very small ones, and all pack trails, the Government will on proper showing open up and keep trails in repair, a good example that our Government might follow to the relief of the hard-working, and, generally speaking, worthy pioneer class in the States. We only made about eleven miles, reaching the summit, and had to camp because wood and water for ourselves and feed for the horses could not be reached before dark if we pressed on. This, especially the feed for horses, often forced us to be contented with what a Californian would consider a very small day's march.

We passed a few of the Indians who had started out ahead of us; they take it very leisurely, and return to Telegraph anywhere between Christmas and March first, according to their luck. They first catch salmon which they dry for the use of themselves and dogs, then hunt for moose and caribou, the meat keeping all winter without recourse to a cold storage company. One family of five had seventeen dogs, and a small puppy of four months of age was carrying his little pack of three or four pounds—they were breaking him in. After camping we took a turn for half hour on the hillside and brought back some grouse.

Though up at five next morning we had to re-arrange pack, and did not get off until 8:40. The Indians were anxious to make camp too early, we thought, so we pushed ahead of an Indian party who had camped; when about a mile away one of the camping Indians came after us to say our men were camping, and we were to come back. As we both knew something about the capacity of a pack train on such a trail with easy loads we would not have it, and told the Indian to go back and tell them to come on; that we were not out for making visits or taking them along for such a purpose, and we went some three or four miles further on to a lake that we had heard of and knew must furnish a good camp, which it did. After waiting a couple of hours the packers came along; they claimed we were going too fast, they were tired and so forth—which was all rubbish; and besides, such things might as well be settled early in the game. We got a few more grouse, and Hamilton tried for some fish in the lake, but the shore line was too swampy and brushy for casting.

(To be continued.)

ECHO.

THE myrtle bloomed by the singing rill,
As it sparkled 'neath the sun,
The wild doe fled up the woodland hill—
And the drowsy day was done.
Then there came a voice from the lone hushed glen,
That mockingly echoed and called again.

The shadowy night came creeping now
With muffled tread, and her starry crown
A shining glory upon her brow,
And the mystic dew rained down.
Then the voice—that voice—now far, now nigh,
Echoed the screech-owl's soulful cry.

The moon climbed up to the summit lone,
And she stood unveiled, for the great world slept;
Like a sinless spirit of light, she shone
Unwearied, her watch she kept.
But hushed was the voice from the lonely hill,
And the great, wild world lay still.

A youth since day-dawn had chased the game,
A slender youth with a princely face,
With locks a-flying and cheeks a-flame
And a proud and haughty grace.
Favored of maiden and man was he,
But with spirit as cold as a moon-kissed sea.

He paused on the summit of the steep,
Weary and lost, his friends he called.
When his voice had died into silence deep—
He started, then harked, enthralled
To a voice like the rush of the wild sea's breast,
Mocking and calling in sad unrest.

Sweet Echo, sad Echo, gay Echo, anon
Had wandered 'mid valleys by day and by night
Elusive and mystic, here, thither and yon,
A shadow, a moonbeam, a flower, a sprite.
He, shouting, "Who calleth!" in vain did pursue,
She mocked him and lured him by echoing "Who!"

At last he beheld her, where he had been led,
Deep down in the valley; the hyacinth, blue,
Oft crushed by the hoofs of the deer as it fled,
In soft woodland beauty here modestly grew;
And here by the clear and melodious rill,
Persephone's blossoms, the bright daffodil.

She paused; oh! how lovely a picture she made,
With tender cheeks glowing and shy sunlit eyes,
A nymph, warm and perfect, she stood in the glade
And gazed at the young man as though in surprise.
But he scoffed at her soft words, nor heeded her pain,
He turned and he left her in haughty disdain.

Now Echo, sad Echo, haunts valley and hill,
She mourns for the proud youth, alone,
Of shame and of sorrow she's quaffing her fill—
Now hark to her calling and hark to her moan!
She still wanders friendless beneath Heaven's blue,
Still mocking, still calling, still echoing "Who!"

—*Marion Forster Gilmore.*

WITH THE LYNX HOUNDS.

By Hamilton Wright.

IMAGINE killing a forty-pound lynx within fifteen miles in an air line of a city of over 400,000. It sounds like a fairy tale or like a hunt after some escaped wonder of a mammoth aggregation under three tents. Yet it is neither one nor the other. In fact many lynx are killed within a few miles of the village of Hayward in rugged cañons cloaked thick with conifers, almost impenetrable with underbrush and studded with rocks, caverns and cliffs which will worry the keenest hound.

Three hours out from the ferry building in San Francisco, embracing a ride of five miles by boat, twenty minutes by train, one hour by electric car from Oakland to Hayward and an hour more by team back into the hills and you are in good cat and coyote country and not more than fifteen miles in an air line from San Francisco.

A try after cats with the hounds is a sport royal to the huntsman. Hunting lynx is fraught with delightful uncertainty even when these felines are fairly numerous. A coyote will run as long as there is any chance to get away, and will only stand and beat off the dogs when cornered or when far away from the huntsman and unafraid of the hounds. But no hunter's guide will ever be written which will be accepted as standard upon cats. The animal may tree in two minutes after the hounds take the trail and remain treed until he can almost be knocked from his perch with a club, or he may tree and run for a long distance from bough to bough, completely baffling the hounds and absolutely refusing to come to ground. He may hit the high places and run like a coyote, never treeing at all and fooling the man who says a bob cat has no wind. And perhaps if the cat is a wily old fellow and has been hunted many times and has concluded that all these shifts are inexpedient, when his spotted hide is at stake he may become a sneaker. A sneaker takes to the cliffs, approaching them by rocky walls where the

KILLED IN CRANE CANON.

trail leaves no scent and at last hiding in some cavern while the hills re-echo with the baying of the baffled hounds.

Sometimes he may try to hide in almost impenetrable brush, but there are few dogs who will not close with him if he makes a stand. It is impossible to enumerate all the subtleties or eccentricities of the lynx. Every hunter will tell you a varied story based on his experience. Sometimes a lynx will crawl into a hollow log hardly more than big enough to hold a rabbit. Again, when the hounds jump him in the open he will stop and make a gallant fight, hissing, clawing and spitting like an overgrown house cat. Not many dogs can whip a lynx unless they can close up with him. At in-fighting a dog has the best of it and can soon maul the life out of his plastic antagonist. But when it comes to a sparring fight a lynx can lick the best dog that ever lived—and few hunt-

ers ever watched such a contest who will fail to agree with the assertion. Backed in a cleft of rocks or in the roots of a hemlock he will soon tear up a dog in bad shape. For this reason some of the best hounds in the world which are good starters and when once upon the trail cannot be shaken off, fail at the crucial moment. They are afraid to close up when the cat makes a stand; the animal breaks away and escapes, sometimes leaving the dogs with ears torn to ribbons. Often a little yapping half-breed cur will furnish the moral stamina for a whole pack of fox hounds, and though he may be rarely first in the chase he will be first in at the death.

For these reasons—and for many others—a day after cats may prove one of ripping exhilaration and excitement. Among the most strenuous cat and coyote hunters of Hayward who keep their own hounds are Mr. S. E. Fisher, Mr. John Oswald, Dr. Halen and Albert Guidice. Mr. Fisher lives at the end of the electric line running from Hayward to Oakland. He does business in San Francisco, but within a half dozen miles of his home he has had cat hunting as exciting as that which John Goff, the famous guide who has taken out President Roosevelt and many others, has had with his celebrated pack of hounds at Meeker, Colorado. Mr. Fisher, like lots of other good men, believes in an occasional day off in the hills. At the present time he has six hounds, Signal Peak and American Scout, both half fox and half blood hounds, Peggy, Elk, Anita and Don, all full-bred fox hounds, and Rover, an Irish setter whose specialty is quail, but who occasionally joins in with the hounds when the pack go a-yelping together after a cat or a coyote.

So much of the chase depends upon the disposition of the dogs that the successful huntsman must know every hound in the pack. Otherwise he will not be able to reprimand or praise them when they have fallen below or risen above what is naturally to be expected of each one in the chase. Scout is the cream of the pack. He is a large black and tan fox hound, rangy and built like a racehorse. Although Scout is a veteran, being seven years old, yet when it comes to a long chase and a hard one he is grit from the word go and can put up a furiously hot pace at the present time. Henry Gerin is

"SCOUT."

another Hayward huntsman who enjoys a day after cats. Mr. Gerin is interested in a ranch in Crane Cañon, about five miles from Hayward, and many a big lynx has run its last trail upon his ranch.

At least 150 wildcats and lynx are killed near Hayward every year. Two or three years back these animals almost disappeared and hunters thought they had them exterminated. Last year there were, apparently, as many in the hills as ever before. Evidently they come in from elsewhere, probably following the foothills down from the Livermore Mountains and the rugged cañons around Mount Hamilton. Reports about their being a serious pest and a men-

"PEGGY."

SOME HAYWARDS CAT HUNTERS.

ace to poultry raising are greatly exaggerated. They doubtless wage a bitter war upon such vermin as gophers and rabbits, which are more easily captured than the wily quail.

Yet cats have been known to crawl up to a flock of quail and snatch one out of the air while on the wing; they get between the cañon and the quail, knowing well which way the quail will fly.

Mr. Fisher was so successful as to get a cat on every hunt for twenty-two consecutive hunts. His remarkable success was due to his hound which was a particular marvel at starting and hanging on to a trail when once a cat was up and moving. Such a dog is hard to duplicate. The hound was of course highly valued, both for her rare intelligence and grit which were conspicuous in every hunt, and also since the hunters were sure of an exciting time whenever they took her out. This dog was killed by an electric car in front of her master's house and within a few miles of where she had many times brought to bay great lynx, most often thought to be game only of frontier communities.

A few days ago the writer took part in a hunt after lynx in the hills back of Hayward. It was about seven in the morning when the dogs took the trail and it led for half a mile through thickly wooded cañons terminating at the head of a rocky draw, where the hounds had put a small lynx up a mountain oak. We could hear them for some minutes and it would not have taken an expert to tell from the baying of the pack that the quarry was treed. There is in the bay of a hound an inexpressible note which conveys the whole story to the hunter. Now the trail is cold, now it is baffling and tortuous, now it is hot and straight away, now the pack have sighted the fleeing quarry, now it is treed and long before one reaches the scene he can imagine the yelping pack and their defiant quarry. Of course the novice can tell from the direction of the sound whether the dogs are moving rapidly or whether they have brought the cat to bay, but the huntsman who knows his dogs can give you a pretty fair idea of what they are doing from their baying.

The lynx was stretched flat on a forked limb of the oak. His coloring blending naturally against the bark and the lights and shadows of the limbs and leaves made it difficult to catch his outline. His ears were laid back on his head, his stub-tail moving from side to side. One could just see a suspicion of teeth behind the snarl of the tightly drawn lip. His whole attention seemed concentrated upon the dogs. He was a picture of watchful malignity. It was a thrilling sight, and the music of the hounds and the wild background were worth any one's trouble. Almost before we had taken our bearings, some one shot. The lynx slipped from the limb, hit a branch beneath and fell upon the ground, the hounds giving him a good farewell shaking. A bad

YOUNG LYNX TAMED BY MR. S. E. FISHER.

lynx had become a good lynx and we were off after another "varmint." This one weighed 22 pounds and was a creditable kill, though lynx have been killed near Hayward weighing as much as forty pounds.

As a general rule it is hard to get cats unless one has a hound specially trained to take their scent and ignore more alluring trails. Consequently one will find more coyote than cat dogs. A blood hound can be trained to be a good cat dog. His nose catches a dry trail or an old trail which a fox hound might miss, but he lacks the racehorse speed and stamina of the fox hound. A couple of Sundays ago a fox hound took a trail in the hills back of Oakland and ran a big coyote into the northeastern corner of Lake Merritt. The same day he treed a big lynx, pushing him so hard and fast that the animal was "obliged to tree to keep the dog from stepping on him." Such a dog is worth a lot of money to the hunter. With him the hills are full of possibilities. One of the best shots ever made at Hayward was when Mr. Fisher's Irish setter Rover, which accompanied the pack, was taken for a coyote which the pack was chasing and shot at a distance of 450 yards. The bullet went through the dog's side, but a hunting dog, like a hunting man, is healthy and recuperates quickly.

STORM AT SEA.

I LOVE the tossing, ceaseless-rolling sea!
I love the din and music of its shore
Where high the waters, upward rushing, pour
Their floods of yeasty foam incessantly.
My soul is restless as thou seem'st to be;
I share thy treasures—all that ample store
Of kingly storms and winds is mine; the more
Thou givest, the vaster thine immensity!
The full-orbed moon, while peaceful sleeps the storm,
Rules waves that have not ceas'd their constant flow
Tho' long the fickle winds have fail'd to blow.
But when the savage tempest rears his form,
And frightened sky is lash'd by raging sea,
Thy roaring waves are crown'd with majesty!

—*George H. Burchard.*

BIG GAME IN AFRICA.

By Elmer E. Davis.

(WITH ILLUSTRATIONS FROM PHOTOGRAPHS BY THE AUTHOR.)

SINCE returning from a two years' trip in the vicinity of Lake Victoria, British East Africa, I have received a number of requests from sportsmen who wish to be informed in regards to the game and climate of that section; as I am an enthusiastic sportsman myself, I am pleased to give all the information in my power which would be of value to any one wishing to take part in the pleasures of a hunt in this natural zoological garden.

People, as a rule, think of Central Africa as a dense jungle inhabited only by snakes and monkeys. Now this may no doubt be true about some parts of Western Africa, but it is not so of the eastern part presently under discussion.

In the last three years a complete modern railroad has been built between Lake Victoria and the eastern coast of Africa, with its terminal on the coast at Mombassa, a British port eighty miles north of Zanzibar. A person desiring to hunt in this country should spend a week or so at Mombassa in order to engage eight or ten porters, a cook and one or two men that are acquainted with the language and habits of several different tribes, the Masai, Lumbwa, Nandi, etc., which will be encountered during the trip. More of these tribes are hostile, but on the contrary a white man is generally treated with much courtesy by all of them.

Having picked your men it remains to purchase your license and a few provisions to last while riding in the train; of course a person can lay in a large supply, but it is not necessary as there are numerous places along the road where tea, coffee, sugar, flour, etc., can be procured, and as far meat—a man that could not supply himself in that country aught surely to starve!

Your armory should contain one shotgun, a rifle for antelope, and a double barrel express—.577 or .400 caliber just as you prefer—but it should be powerful enough for heavy game. A tent, some blankets, camp dishes and utensils will complete an outfit which will not be too large for your porters to carry comfortably.

We will now suppose that your outfit is loaded on the train and you have entered a coach going to Port Florence on Lake Victoria. It will probably surprise you to know that you are being drawn by an American locomotive, but such would be the case as there are twenty of them in operation on the road. Upon leaving the coast you pass through a vast cocoanut grove extending thirty miles inland, after which the whole aspect of the country changes and you see for miles nothing but low trees and grass on both sides of the track. You also notice a change in the climate, for you have been steadily climbing upward and will continue to do so for four hundred miles where an altitude of eight thousand feet is reached.

The second day away from the coast you will probably open your eyes upon a sight which you will never forget, for on both sides of the track will be herds of different species of antelope mingling with hundreds of Zebras. This will continue until Niarobe is reached when the country changes again

A HARTEBEEST.

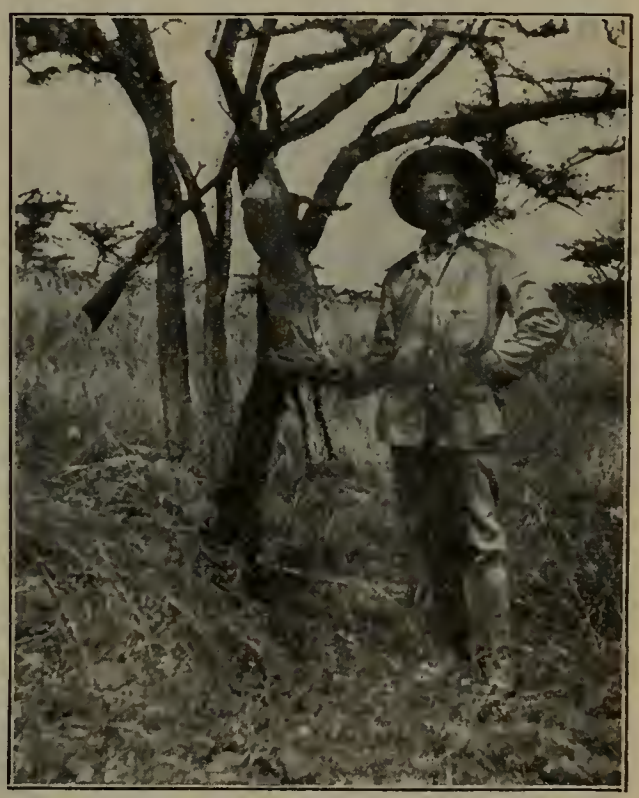
A GOOD KOODOO HEAD.

and the road enters a thick jungle some sixty miles in extent, but which breaks off suddenly as the train descends into the great escarpment leading around to Nekura. This valley is thickly populated with game of numerous species, including elephant, rhinoceros, zebras, and so forth, and as there are a number of lakes in this vicinity, hippopotamuses are also easily obtained, for they inhabit every body of water in Central Africa. If you are an enthusiastic sportsman, you will say, "this is the place for me," but be patient yet a little while.

As the train whirls around a hill the little bunch of corrugated iron houses which is graced by the name of Nekura meets your view; it is nestling along the lake of the same name, and affords a beautiful picture if it is a bit crude. We are now passing through a district made famous along the railroad on account of the number of lions which are known to inhabit it, and the people of this little town can tell more true lion stories than any other "city" of its size on earth. It is indeed an "off" night that the roar of the king of beasts is not heard out on the plains close by, so if you are after lions get off at this place and you will not hunt many days before your quest will bear fruit. Whether you will kill or be killed is another question, it is largely a matter of nerve with a bit of luck thrown in. There is a story told here of an ardent lion hunter, Mr. George Gorman, an Englishman, who, upon finding the lion he was hunting, forgot he had a gun and precipitately scrambled up a Mimosa tree which, being thickly studded with thorns, he was unable to descend until the porters cut off the restraining spines.

If you are not going after lions stay on the train until the next stop at the plains of Njora; the station here consists of a telegraph office and a water tank, so you will not be bothered by an overplus of social calls.

After camp is arranged take a look around and you will see one of the finest views a sportsman ever looked at. Stretching far out to the north is a rolling plain covered with soft grass and many beautiful gazelles may be seen dotting the ridges where the grass is short and tender, while occasionally a sturdy hartebeest meets the line of vision. Turning to the east, Lake Nekura may be seen, although some miles away. Here may be found numerous ducks, geese and cranes, with an occasional hippopotamus, although the latter are becoming scarce in this lake



ORABI KILLED ON NANDI PLAIN.

LIONESS SHOT FROM ENGINE CAB, UGANDA RAILROAD.

on account of so many hunters camping in that vicinity.

To the south and west is the forest of Molo which is a fairy land to lovers of nature. Some parts of this forest are so choked with undergrowth that it is almost impossible to penetrate but a short distance, while in other places beautiful grassy glades and openings may be followed for miles in a twisting and roundabout way, and it is in these places that the pretty little bush buck and Pallah buck are to be found, while in the denser parts elephant and the beautiful *colebus* monkeys are very plentiful, with now and then a few buffalo. These latter were at one time very numerous, but some years ago the rinderpest swept over the country leaving its trail of death, and the number of hollow-eyed skulls which are to be seen in an ordinary day's hunt is a very saddening feature.

The climate at Njoro is perfection; the days are delightfully cool, averaging about 70° above zero, the nights are slightly cooler, averaging about 50°, and it rains one or two times a week as a rule. The rains occur always between the hours of 3 p. m. and 5 p. m., the downfall being usually a heavy dash, lasting ten or twenty minutes.

PART OF THE KILL.

THOMSONI GAZELLE, NJORO PLAIN.

Good shooting can be had almost anywhere along the railroad, but most places are all plain or all forest, some are hot and some are full of fever. Knowing the country well, I have no hesitation in recommending Njoro for all round hunting and comfortable climate.

I have also the opinion of Mr. Selous and Mr. Neuman, two of the most noted hunters in Africa, to back up my statement, for they say that of all the time they have spent in Africa they enjoyed none more than that spent along the Uganda railroad, and especially at or in the vicinity of Njoro.

A DAY AMONG THE VALLEY QUAIL.

By W. C. Whittemore.

CALIFORNIA quail hunting is a sport in a class all to itself. A title like the above would to our Eastern brother only bring to mind visions of the stubble or cornfield, a nice dog on point, some nice little bunches of brown feathers floating gracefully away, and a sporting gentleman calling to his dog "Fetch! Charge! Good boy!" What a picture! How it stirs the pages of memory and takes us back to Iowa, Nebraska or the Indian Territory as the case may be. But to us 'uns out here among the sage-covered hills, greasewood and hot cañons it has an entirely different sound. My friend and I left the above little town, which is pretty convenient to the foothills, just as the town clock was striking 3:30. It was cold that morning, in fact so cold that with sweaters and top coats we were compelled to take turn about punching the old guy skate while the other warmed himself by trotting behind the little buckboard.

The writer took along a small "kodak" for the purpose of taking a few snap-shots. Our route lay along the Southern Pacific Company's main line where it makes its way from the San Bernardino Valley through the San Gimalio Cañon eastward, and in the early morning light we saw many numbers of the lupus family but did not uncase our guns until we reached the El Casco reservoir, where we had bagged many a nice sprig and spoonbill; but this time there was only one big, lazy blue crane to be seen.

Arriving near the hunting grounds we tied the horse and doffing everything we could spare—for the sun had made its appearance and we began to feel his presence—we placed fifty shells each in our pockets and proceeded across the "flat" to the hills near by. Stopping at intervals we listened for the familiar "cook-ah-cá," and soon located the call in a small draw. These hills are covered with a rather dense growth of sage and greasewood, and although we call them "hills" some of our Eastern brothers would call them pretty good mountains. We soon discovered the "little blue streaks" going up the bank. They flushed, but were too far away for a shot.

The valley quail seem to be very ambitious, and should they by chance ever find themselves on the proverbial ladder I feel sure they would reach the top round. We soon found we had passed some of the birds, as they began to flush below us and spin around the hills right and left. Right here let me say, Mr. New England-shooter, if you want sport that will compare with ruffed grouse shooting just try some of this!

By scouring the brush and cañon walls we succeeded in bagging a few and passed on over the ridge in search of new fields. What did we want with new fields? There was perhaps forty to fifty in this one flock; now where had they gone? We were not long looking, however. Not more than three hundred yards ahead we heard more calls, and following the sound found that they were below us among some live-oak trees. We were above the birds this time and had the advantage to some extent. My friend circled down and around them while I went almost straight down the hill. I could hear them chirping and cooing—just having a big time—not scenting danger and most likely not caring. Pretty soon they began to fly and run, mostly the latter. My friend fired and scared one, and two came right over the live-oak trees almost straight at me. They were so close I missed the first but caught the second with the full charge and the air was filled with dust and fine feathers. Before I had time to pick him up the air was filled with hurtling quail, and I had three more on the ground with a miss between. Away they went around the hill and we gathered up the dead and followed the flock, which, however, had reached the hill and

were safely hidden in the brush. So we gave them up and crossed the flat to some more inviting hills not so steep and brushy.

Midway on the flat we found an irrigating ditch and took our fill of the fresh, cool liquid. Separating, I passed up one draw and my friend another. It fell to my lot to find the next bunch, and as they flushed at the foot of the hill I fired two shots but only got a few souvenir feathers. Hearing the shots my friend came over the intervening ridge and soon the real fun began.

This ground was reasonably fair. The brush was about waist high and the draws and cañons not so deep. We carefully scoured each draw and hillside and kicked them out in threes and pairs just right. So the shooting went on nicely till the shell pockets got lighter and the game pockets heavier—not in proportion, however—till the flock was pretty well scattered. We took an intermission for rest and counted up; my friend had 19 and I had 17. The limit is 25, so we ate an apple brought along to stay the pangs and went after them again.

The more valley quail are scattered the better they lie, therefore the more you scatter them the better will be your score. I do not think that there were over four of these birds close enough to each other for one to flush them at once. Many times, though, when hunting for one which had been killed we would flush others, and right here is where a companion comes in handy. Many shooters of the California quail spoil their average by losing birds which they would have easily found had they not been so greedy and lost the location of a dead bird while trying to kill more. Remember the old saying about a bird in the hand. When you shoot a bird have your friend keep the place marked while you go to where it fell.

We continued to have good shooting until the limit was reached, and returning to the wagon hitched up and drove to the dairy, fed and watered the horse, and while eating lunch—which we washed down with some fresh milk procured from the dairy—we talked over the long and difficult shots. We made many nice shots which any one would be proud of. Many misses can be credited to the poor footing. Then again, when a man has been shooting in close quarters and is placed on level ground he is apt to shoot too quick. While shooting the valley quail you must pick the place for your bird to fall before shooting. This may seem like counting chickens before the eggs hatch, but it is nevertheless a very good plan. Especially is this noticeable when flushing quails in a cañon. They will almost invariably go to the top of the hill. In this case they should be killed if possible before they reach the top of the hill because if you do not see them fall it is ten chances to one you will never find them. "Why not use a dog?" says one. Why the heat and rough ground soon fatigues a dog so he has no energy and the dust from the sagebrush fills his nostrils so he cannot scent the birds. We reached town at dark, well satisfied with a day's sport such as we wish could fall to the lot of all brothers of the hunter guild.

A LATE HUNT IN THE YALLO BALLYS.

By George S. Evans.

ALONG IN April, the sight of fishing tackle or a rifle on display in a gun store, causes George F. and me to commence to yearn for a mountain trout stream wherein we can place our feet and feel the water lave them, and we have visions of brush patches out of which Columbia blacktails stick their heads like turkeys in a grainfield. It is then that we hear the "Call of the Wild." Memories of past trips, with their fatigue and hardships, exciting incidents and triumphs, rise before us and the primitive in us clamors for trail and mountain peak, stream and forest. That call, like the ghost of Banquo, will not down; it must be answered. All letters from up country received in the summer of 1903 from our genial friend Dell E. enjoined that we come "late." George demurred to this. He was fearful that a late hunt and early rains would be the combination. As for me, I had never been in the mountains during a heavy rain storm, and hence looked forward to the enjoyment of a new sensation. Dell wrote that "a rain storm would add romance to our trip," and that he liked to hear the crash of thunder and see the flash of lightning. George had been in the mountains when it had rained and this accounted for his solicitude. He said to me that Dell wouldn't care if we got snowed in for the winter. After a lot of backing and filling—changing of dates and plans—we started for "a late hunt." Next year we leave for the mountains on the 12th day of July.

Some hunting trips are noted for the extreme grace with which game allows itself to be killed, others for the tender regard for life displayed by it, and others by the seeming desire of everything to go contrary to wishes. The trip under narration belongs to the latter category. We supposed that when the leaves of the cottonwood turned from green to red and brown, and when ice would be found in the water bucket on the morning of September 25, four-point bucks and six-hundred-pound bear would haunt the ridges.

THE PACK OUTFIT.

It was a gallant cavalcade that set forth from Dell's ranch in western Tehama County on that "glorious day of September." "Jake," a long-eared mule, "Frank," a horse from Modoc County, with all the vicious traits of that county, and "Norma," an eighteen-year-old with a colt, were loaded with the provisions, bedding and general camp equipage. Dell rode a strapping horse named "Nig," George was mounted on a sorrel of large proportions, with a vindictive colt, and I rode the "China" horse, so called because she had once belonged to a Chinese. The Chinese had sold her because of her sterling kicking qualities. There were three colts on the trip—the two mentioned and my 38 U. S. Army. Diminutive horseflesh is a good thing to leave at the ranch. It always does the wrong thing at the wrong time. If a colt would try to do the right thing with the same degree of strenuosity as he invariably tries to do the wrong thing, war clouds in the Balkans and blue clouds of profanity in the Coast Range would disappear. These

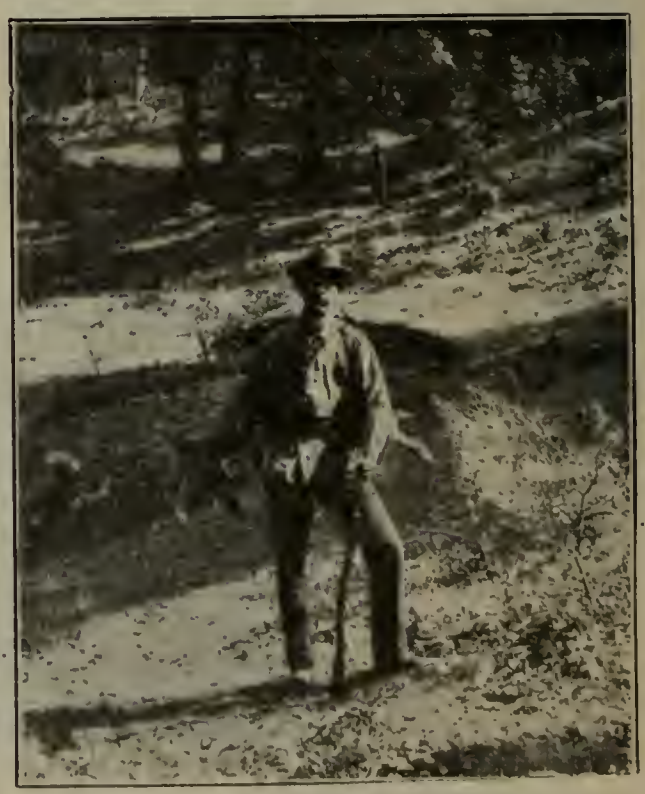
OUR CAMP.

colts got in the way of "Jake," and that patient animal put in his spare time meditating revenge and his working time in kicking and biting them. They would get off the trail where it was good and frisk and gamble o'er the pine needles. They would get in the way on the trail at dangerous corners. They would start out briskly in the morning and wind up in the evening "plumb petered out." To continue with the specifications of error on their part would make this paragraph look like the Declaration of Independence. Never take a colt to the mountains unless you want to hunt cougar. To that sneaking brute a colt is a tidbit.

We arrived at Hunters Camp at 7 P. M., and were glad to get there. Men who sit around town for eleven months in offices, and on the bleachers Saturday afternoon, and spend one month out of the year in the wilderness, are generally far from expert horsemen. I have heard of one city man, who went out once upon a time with Dell, that had to be lifted from his saddle at the end of a day's "hike." To get your first meal in camp after dark is a nne thing if you don't have the coffee, sugar, frying-pan, bacon, flour, etc., scattered through six *alforas*. When such is the case "a condition confronts one; not a theory." After supper, we outlined the programme for the next day. It was to consist of an early breakfast and a deer hunt.

We arose and had our breakfast at an hour before the cars start in the city. George and I chose to hunt together, and Dell said he would go and hunt horse feed as well as deer. George and I had hunted this section of country the year before and hence went "right at 'em." We determined to become re-acquainted with "the oak burn." Will some one please to tell me why boot and shoe companies manufacture half-boots and advertise them as adapted for outings? A foot-racer never weighs himself down with heavy footwear. Why, then, should a man in the mountains, where weight on the feet is a drawback, put several unnecessary pounds on his feet? If boot and shoe companies would cease turning out their murderous instruments of torture called half-boots—"adapted for outings"—and manufacture moccasins, they would confer a lasting benefit on humanity and cause the price of buckskin to rise. I had on a pair of half-boots—and a raw place on each heel, after a mile.

George asked me if I should prefer to hunt above or below, and I said "above." Thereupon he plunged into the oak brush, while I occupied a position of vantage on a rock pile. I scanned "the oak burn" and on a ridge over a quarter of a mile away caught sight of three deer acting strangely. They would run a short distance and stop, run on



GEORGE'S FORKED HORN.

again, stop and turn around. Through the brush I saw something of a yellowish tinge and concluded that a coyote was after a fawn. I took careful aim at the trailer of the deer. At the sound of the explosion the deer disappeared over the ridge and in place of a coyote, a cougar leaped into the brush and out of sight.

I started to follow the ridge, George having taken a proper interval. Soon I heard him say:

"Here's a rattlesnake."

"Kill him," said I.

Immediately from George's direction I heard a sound as if a shower of meteors, each about the size of a baseball, had fallen.

Forward we walked. Deer beds were plentiful, but the deer were not in when we called. For hour after hour we walked and still no deer. At length we climbed to the top of a ridge and George peered over. He raised a warning hand and I turned into a statute. He gazed but made no motion to fire. He whispered that he couldn't tell whether it was a buck or a doe and for me to go down and come up under the animal. This coup I started to execute in as silent a manner as my half-boots, with the wealth of hob-nails in the soles, would permit. I had gone about ten feet when I heard a shot. I ran to the top of the ridge and beheld a forked horn fleeing for his life. It is possible deer have been killed when two or more were shooting, but I have never seen the feat performed. The forked horn disappeared down the gulch, a hail of lead following in his wake. George was inclined to be angry at himself.

"I should have known that a doe wouldn't stand and rub her head against that elder bush," he explained.

We "hiked" on. We left the brush and entered the timber. Through a cluster of young pines we espied a yellow mass surmounted by horns. At the sound of our firing he leaped away to liberty. George was disposed to blame luck. I thought the men behind the guns were slightly to blame. I use the word "slightly" because a man who doesn't get a chance to fire more than fifty shots a year from a large caliber rifle is not to be judged too harsnly when he misses. We started back to camp, all hope gone and bacon for breakfast staring us in the face. Bacon 6,000 feet up in the air is good, but a piece of buck meat "will shove you up hill farther." I was at George's heels, when of a sudden I saw him lift his gun to his shoulder and fire. Through an opening I beheld a three-pointer going at about twenty feet to the jump. More shots were fired and he disappeared.

"You'll find one over there behind that pine tree," said George; "go over and roll up your sleeves and get to work while I follow that big one."

I went over to the place indicated, and found a forked horn shot through the "sticking place." We had fried backstrap for breakfast. Dell had seen "a lot of old does" who could "thank their stars they didn't have horns." Also, he had seen some cougar tracks, which made him tremble for the colts.

The next day I went fishing, and George and Dell went hunting. I caught a nice mess of trout and also caught my heel between two rocks and narrowly escaped collecting a weekly indemnity on my accident policy for a sprained ankle. To get to the creek was easy. All I had to do was to let go and arrive with scratched hands and a torn sleeve. To get out of the creek I had to hang on lest I speedily return. I missed the trail to camp and thrashed wildly through the brush for some time before I found it.

That night I was awakened by a revolver shot fired right alongside of my left ear. I grabbed my Colt from under my pillow and peered out into the darkness just in time to see Dell's revolver flash again. I heard something in the brush near the tree to which our "forked horn buck" was hanging, and turned loose with my weapon. George murmured from the depths of his sleeping bag: "Such is life in the Far West."

The varmint discontinued his movements, and the "song of the pack" recommenced. The next morning George accused me of having snored. Perhaps the light air did cause me to "saw a few logs," but he was not immune himself. Dell told me so.

Investigation that morning showed that a fox had eaten some venison then and there being our personal property. Dell said we'd do some trapping, and accordingly two number four traps baited with the

ONE DAY'S KILL.

head of the deer were set. About midnight I heard the brush rattle, and then the sharp click of a trap, followed by sounds of an impassioned futile break for liberty. Dawn showed that another transgressor had put his foot in it. We gave the fox a trial by jury, but the presumption of innocence until proved guilty did not obtain; he had been caught red footed as it were, and it was decided he must die. George was elected lord high executioner. There were no law's delays, no writs of habeas corpus, probable cause, or supersedas. George picked up an oak club about ten feet long and marched with a Koko stride toward the cowering culprit. I averted my eyes, and soon heard a dull, sickening thud. The coroner's jury found that the killing was justifiable.

A day or two later George and Dell went on a hunt while I remained in camp to nurse my sore heels and swear at the half boots. When the hunters came back they were extremely voluble and strong in exclamation. They had reached a high cliff from which a good view of a wide expanse could be obtained. A long distance off they saw a doe doing queer stunts. Watching for quite a time they perceived a long, skulking, tawny animal near the deer. They took careful aim at him and fired, and at that the doe and fawn left for an unknown destination and the cougar jumped high in air. He was very angry at being cheated out of his breakfast, and awoke the echoes with his wild snarling. He showed no disposition to leave, and so Dell told George to stay where he was while he himself made a detour and got below the big sneak. George remained as directed, and saw Dell approach the cougar. Closer and closer to him the hunter made his way. The brush was breast high, and when Dell got close to the brute he was unable to see him, although he could hear him. The cougar now began to move, and Dell followed the noise, getting within fifteen feet of the quarry. What George's feelings were as he beheld this spectacle from the rock pile may be easily imagined. For yard after yard the cougar moved, with Dell keeping pace with him, but always unable to see him on account of the brush. After about three hundred yards of this heart-breaking sport to George and Dell, the big cat came to some very heavy brush, and there disappeared. Disgust reigned supreme. Dell said that when he got within fifteen feet of the animal he wouldn't have given fifteen cents for a risk on its life. He concluded that we had better move to some less cougar-infested district, otherwise the frolicksome colts might be pounced upon. Besides horse feed was as scarce around camp as cougars seemed to be plentiful.

We decided to go over the summit to the headwaters of Eel River. We packed up one Sunday morning and started. If we hadn't been on the trail that day we would have gone fishing, because all experience hath shown that fish are more disposed to bite on the Sabbath than on week days. Late in the afternoon we made the summit. Dell took on an anxious, pained expression, and inquiry as to its cause brought out the news that he was suffering from toothache. He thought the pain would cease after we got unpacked and supper over, but it didn't. In fact, it grew worse. It was the jumping variety of toothache, and seemed to be in an athletic condition. All that night Dell suffered intense pain, being compelled to lie by the fire. The next day he didn't feel able to move. But on Tuesday he decided that he would go on, as the agony seemed to have abated. We reached camp about 4 P. M., and the tooth began to jump again. His jaw swelled up; he said every tooth on that side of his head was aching. Exami-

nation of the tooth showed that the nerve was exposed, and the swelling indicated ulceration. I tried to kill the nerve by dropping solution of carbolic acid into the cavity with a fountain pen pipette. This seemed to ease the pain somewhat, but the swelling refused to go down, and finally Dell decided that he would have to go back to civilization and have the tooth extracted. This meant a trip of one hundred and twenty miles for him.

The morning before his departure we all went hunting and Dell killed a forked horn. That evening George and I went after the slaughtered quarry, George carrying his rifle, acting as escort, and I with my Colt leading Norma. We found the deer all right, and lashed him on, and started back to camp. George decided to go around the "Knob." If I heard him shoot I was to fire, and if he had killed anything he was to shoot again. I had nearly reached camp when my ears were greeted with five shots, fired in rapid succession. I waited until the echoes had died away, and then fired. Across the cañon from under the peak came an answering shot. I hurried to camp and threw off the forked horn and put out in the direction of the shots, leading the horse. The long shadows were creeping down the deep cañons, and the Knob was about two thousand feet high, so it behooved me to hurry. There was no trail, and the mountain was covered with "shell" rock, with numerous rock slides and many oak brush patches. Despite these drawbacks, I made good time. When I arrived, George had just finished dressing a forked horn. He had broken its back while it was leaping over the brush. To shoot a deer while it is moving thus is like shooting at a porpoise when it comes to the surface, only more difficult. I saw that George was highly delighted over something, and concluded that he had something up a tree as it were.

"What else did you kill?" was my query.

"Oh, I did a little business up the hill—got a four-pointer," and he spoke the truth.

George had killed his three for the season and Dell one, and my score was none—as yet. George had seen six deer in the band. He had missed the first three shots.

"There's a whole lot of country that isn't deer, and I shot too under," was the way he explained the misses.

The next morning Dell started out to have the tooth removed, leading Jake, with fresh meat for the ranch, aboard. We told Dell to bring out some fruit and detective stories.

Then George and I put in a week by ourselves. I hunted and killed a forked horn in a moment of thoughtlessness. The weather changed. On the morning of September 25 I found ice in the water bucket. Two days later rain clouds began to gather, and we snugged down everything. We could hear thunder from afar and see lightning play around far-off peaks, but the storm didn't touch us as yet. It was saving its strength.

Late one evening Dell came in. Jake was loaded down. Tokay grapes and Bellefleur apples taste good in the wilderness, and mail from home makes a man forget to hate even a cougar—for a few minutes. Dell brought the detective stories as requested, but he left the tooth with a dentist. At first I thought he had bought out a newsstand, but investigation showed different. By detective stories I had meant "Monsieur Lecoq," "Sherlock Holmes," and "The Pagan Cup." Dell thought I meant "Fighting an Unknown Foe," by Old Cap Collier; "The Missing Cotton King," by Nick Carter; and "The Lady Detective," by Old Sleuth.

OUR BIGGEST BUCK.

I can always tell when we are going to move in the wilderness. Whenever Dell and I get a bed of boughs about a foot thick so it is comfortable, it is a signal for a move. This is a rule that admits of no exceptions. Dell and I had a bed of this sort under the wide and frosty sky. Very early one morning the spiteful spat of rain on my yellow comfort "ravished my delighted ear." In my half-sleepy state I vaguely realized that we should have to move, but made no effort in that direction. Soon I heard Dell say: "It's no use waiting; we might just as well move now and have done with it."

We broke bed right there and established a new one in the lee of a huge fir. George had had the foresight to put his sleeping-bag in the tent, and I heard him snicker while we were moving, and then from the depths of the tent came the sage remark: "Such is life in the Far West." Dell said he enjoyed "a late hunt," and I dryly remarked in the midst of wetness that a "rainstorm adds romance to a trip," and that I liked to hear the crash of thunder and see the flash of lightning. We covered our new bed with canvas, and told the rain to do its worst. That wasn't exactly what we said in so many words, but the language used in the preceding sentence states the ultimate fact. In a short time I fell asleep, lulled by the patter of the rain on the canvas. When I awoke in the morning I worked my way from under the blankets and peered out upon a world of moisture. The canvas covering was full of little lakes.

That day we moved into the tent, spruce boughs and all. On a rainy day we found our library of detective stories very handy.

We wanted to take some fresh meat to the ranch, and when the storm was over Dell and I started off "hot foot Ike" to get each the two bucks to which we were entitled. We supposed now that the inclement weather was over four-pointers would congregate on the ridges. But evidently the storm was a signal for a buck migration to Oregon or British Columbia. Does and fawns were plentiful, but we were looking for "horns." Dell now rose in his wrath and branded the trip a failure; he said it was the "biggest false alarm ever turned

THE VENISON THIEF.

in." He was prejudiced, however. He had had the toothache.

One day—about the tenth of October—we packed up and started for Hunters' Camp, intending to wind up the trip in a blaze of glory. When Dell returned to us after the tooth episode he brought his two dogs with him. One was named Bryan, after the illustrious Democrat. Our Bryan didn't know anything about the free silver question, but he was a careful student of the chipmunk and red-squirrel problem. The other canine answered to the name of "Pup." Pup was young and foolish, and disappeared the day before we started for Hunters' Camp. We found her at the ranch when we got there. Bryan, however, stayed by the band wagon, and will get a collar some Christmas as a reward for his steadfastness.

And now we come to the peroration.

We were on the trail just under the peak of South Yallo Bally, Dell in the van, leading Norma and Jake, followed by George leading Frank. I, like Marshal Ney, was the rear guard of the Grand Army. Of a sudden, I saw Dell rein in his horse, dismount in haste, grab at his rifle, fail to get it loose, and run over to a tree, gunless. He called, "Here, Bryan! Here, Bryan." George dis-

mounted and pulled his rifle from its scabbard. I saw Bryan put his nose to the ground and start off, wagging his tail. I jumped at the conclusion that a bob cat or a bear was in the vicinity. George went down about one hundred feet under Dell and came to a little patch of wild cherry bushes, yellow in the autumn sun. Imagine my surprise when a cougar jumped out from under him, about eight feet away.

I drew my Colt and pointed it cougarward, but the brute went into the brush before I could get a shot. I leaped wildly from my horse, pulled my rifle from the scabbard, and took after the animal. I readily found its track, but never saw it again. From far down the cañon came sounds of a struggle. "Sick him! Catch him," and Bryan's angry barks greeted my ears. As I started down toward the field of active operations. I heard a rifle crack. Then Nirvanic silence reigned. Soon George and Dell and Bryan hove in sight. Bryan was carrying his head high and his tail at a wag. George said: "We want the camera." We went back to the pack train, got the camera and betook ourselves down the cañon, and soon mine eyes beheld an enormous female cougar with a bullet hole through her throat, lying under a cedar tree. It isn't every day that one gets a chance to take snap shots of a

THE DEER SLAYER.

"IN HEROIC ATTITUDE."

cougar, and the most was made of it. Each member of the party and Bryan had his picture taken in a heroic attitude over the brute, and two were taken without the human or canine background.

Dell and George told me what had happened. Dell had seen the cougar from the trail and Bryan had picked up the track and was soon in close proximity to the beast. The cañon side was patched with a growth of alder, wild cherry, and buckthorn. Through this, dog and cougar fought. Bryan would seize her by the hams, she would turn on him, snarl, spit, and strike, whereupon he would let go and she would start on again. Bryan would repeat his rush-in-and grab tactics, and the cougar would make her same play. For at least half a mile this was kept up, Dell and George following closely and not daring to fire lest the dog be struck. At length the frightened quarry climbed a tree, and Dell fired the shot that removed a cowardly brute from the world. Her hide will adorn the floor of George's room.

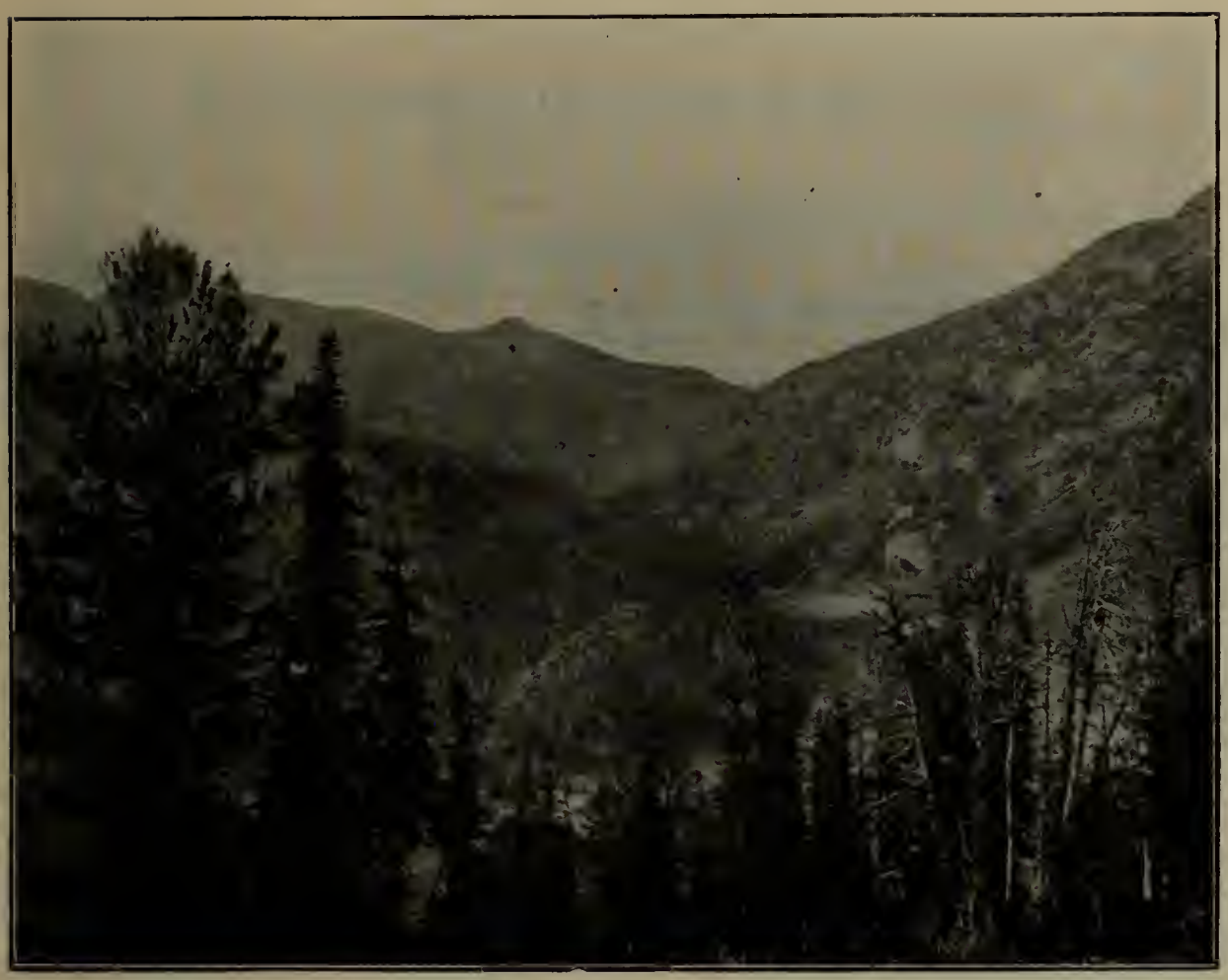
After this little recreation we started on to make camp. We had probably gone one hundred feet when George's keen eye discovered the carcass of a buck. He went over to it and found that it had been killed by cougars. Dell vowed he would return that evening and set our traps. He thought that when morning dawned we would have

cougar to fight. He returned and set the traps, and next morning saw a tough looking array making its way thither. George and Dell each carried a rifle; I had the camera and my Colt, and Bryan was robed in conceit. We made our way to the traps and found them sprung and no cougar. The deer carcass was gone and cougar tracks were present in numbers. Dell set Bryan on a track. I went to the right and beheld a small cougar doing the grand sneak act toward some brush below me. I drew my revolver and took after him. Then I heard "sick him, catch him," and the excited bark of the dog. I followed the one I had seen, but didn't catch sight of him, and abandoned that part of the chase. I could hear the sounds of a combat below, and broke all records getting down to it. Soon I caught sight of the melee. Bryan and the cougar were fighting wildly in the brush. Dell was below and George off to the right. Suddenly the dog and the cougar fought their way out of the brush and the big cat leaped away from his tormentor. Dell was standing right in line with the course of the hunted, and the frightened coward ran within eight feet of him and paid no more attention to him than would a house cat under similar circumstances. I saw Dell's rifle leap to his shoulder and heard a sharp explosion. The cougar kept on and started over a log and another bullet followed him. Forward men and dog swept in the trail of the enemy. Bryan caught up with his foe again, and the cougar climbed a tree. I saw both Dell and George raise their rifles and fire, and the deer-slayer fell out, shot through the shoulders and the nose. Then we hurried back and set the dog on the trail of the one seen by me. He readily started off with nose to the ground, and we set off again. Bryan followed the track for several hundred yards, when some does and fawns crossed it and confused him. We then returned to the slaughtered coward and his hide will adorn my room. Dell said we had run on to a family of six and if we could find any horse feed worthy the name we would stay and get them all. But after a search we found none, and sorrowfully moved on. A cougar in the wilderness does not seem to have the same general characteristics as a cougar at the Chutes. He looks different without the bars in front of him.

We made our way to Hunters' Camp and spent three days in the tent watching it rain and reading Old Sleuth. The weather then cleared up, and we decided to make our way to the ranch. Mount Shasta was robed in snow from the base to the summit; the Siskiyou Mountains, the Bully Choops, and the high peaks of the Yallo Ballys all had crowns of snow. The weather was cold, horse feed scarce, and provisions low, so thoughts of the ranch were cheering. When we arrived at the ranch taps were sounded and the "late hunt" was over.

We had lost flesh and gained muscle. We had faced the fury of the elements, and had looked down gun and revolver barrels at furry furies that might (?) eat a stranger raw. We had packed, and ridden, and hunted. In five weeks we had seen but one human being, outside of the members of the party. We had led a life of freedom. And now it was all over, all to be shoved behind us—all to become a memory and a tale wherewith to bore our friends.

Once more we put on civilized garments, civilized because uncomfortable, cleaned our weapons, and dropped them into cases. Then we made our way to the station, twenty-five miles away, took the train, and the next morning found us back amid the vapor, and fume, and brag of the poor little street-bred people.



Photos by Geo. Gignac.

TWO OREGON GEMS.

DOWN THE LOWER CALIFORNIA COAST.

By J. M. Scanland.

OWER California is practically unknown to the sportsman, yet it is a country alive with all kinds of game. It is an uncivilized land and one almost unknown geographically, especially in the Cape region. It is considered of so little importance that the Mexican government makes little or no attempt to reclaim it from the savage Indians—perhaps, because it cannot. There have been less changes in this section of country than in any other in North America. The coast is reached only by vessel, no railroads extending into the far interior, where game is most plentiful. Railroads have brought almost every other section of the country within easy reach of the sportsman, but, excepting a narrow strip along the coast line, Lower California remains closed except to the aborigines.

In this isolated country the natives use the weapons handed down to them from the earliest period of its settlement. Along the coast line, however, where Americans are at work in the mines, modern arms have been introduced and animals instinctively take alarm at the report of a gun. Of the seventy-five thousand people who inhabit this seven hundred and fifty miles of Pacific coast line, about one-half live by the fisheries and salt-pits. These are mostly in the vicinity of La Paz Bay, which is also the center of the pearl fisheries. Scientific expeditions have visited places along the coast and made long reports on the various animals and fishes found there, but the only information of interest to sportsmen comes from the American "invaders," whose principal hunting, however, is for gold and silver, and some of their stories are disputed by the scientists who have visited there.

It is popularly believed that the rattlesnakes of this region are more poisonous than those of any other country, and that no person ever recovers from a bite. Scientists prove, however, that the natives cure the bite by roasting cactus leaves and placing them upon the wound. The sportsmen of this region are fond of telling alligator stories—how they killed thousands, or could have done so, notwithstanding, as the hunter well knows, that it requires a center shot, the 'gator having few vulnerable spots. The natives of the Lower California Coast catch the alligator by creeping up on him as he basks on the shore, and thrusting a lance through his tail, thus pinning him to the ground, when he is easily dispatched. Hunting the 'gator is a matter of self-defence, as well as a means of livelihood with them, for the animal has a habit of stealthily creeping out upon the banks and, with a vicious sweep of his tail, knocking a woman or child into the water. There is an authenticated story of a Mexican washwoman who thrust a finger into each of the eyes of the alligator, which bellowed with pain and released the woman, who lost no time in safely regaining terra firma.

Hunting the cayman on the Lower California coast is one of the amusements of visitors, while it is also a matter of business with the native, who wants his tough hide. The cayman is a species of crocodile, and bellows like a bull. The natives hunt him at night when he is feeding, for that is the best time to shine his fiery eyes by means of a bullseye lantern. The boat is pushed along through the tangled vines and bushes, a machete often being used to cut the way. There is considerable snake life in these swamps, and as a protection the natives usually fortify themselves with amulets, relics and other "charms." One of the natives wades out and sets the trap, which is a wand about five feet long made into a circle and secured to a post. It is baited and sunk two or three inches below the surface of the water. The hunters then move around in the canoe and beat the water with poles. This slashing sounds to the cayman like cattle swimming in, and he at once makes for the spot. When he has swallowed

THE HIGHEST TYPE OF CIVILIZATION IN LOWER CALIFORNIA.

the bait, he finds his upper jaw within the rope and circle and his lower jaw is below it. The noose is immediately jerked and his head is tightly inclosed, the rope catching very firmly in his upper teeth. The hunters then pull for the shore, where the animal is dispatched with knives.

Another native way of catching the cayman is to throw out a blown bladder, which eludes his every attempt to catch it, as a soap-bubble is wafted by the wind away from the grasp of a child. Enraged by his failure, he loses caution and is easily lassoed. In the autumn, when he burrows under the trees along the banks, the most daring hunters creep up and with an axe cut off his tail, which is the part most valuable for food.

In the lowlands is found a species of edible lizard, with a softer and finer skin than those of any other North American species. These lizards are very numerous and, notwithstanding the large number caught for the market, they do not seem to diminish in numbers.

Man-killing sharks are plentiful in these parts and afford a lot of sport to the native hunters, who sail out on a tule raft and throw out their fishing lines, with large hooks baited with beef and attached to a chain, so that the shark cannot bite them off. When he swallows the hook a riata is thrown around his tail and he is drawn to the shore. In the meantime, the hunters club him every time his head appears within reach. The tail is used for food by Mexicans and Indians.

Some of the more daring Indians hunt the shark while bathing. They noiselessly swim upon him while he is looking for his diet of fish, and before he can turn over and open his wide jaws he is given several stabs in the most vulnerable part.

At Cape San Lucas, the gill fish is found in large numbers, and is taken by the natives with bone hooks. Since the advent of the Americans they have also learned to use dynamite. These fish are twenty-five and even thirty inches in length—larger than any of this species on the Pacific Coast.

At the mouth of the Gulf of California stands the Island of San Jose, famous for its pearl oysters. Spanish freebooters in search of gold entered this gulf three hundred and sixty years ago and named it the "Sea of Cortez." From the natives they took pearls and finally discovered where the treasures lay. They then enslaved the aborigines and used them as divers. Until within the past half-century, the Spaniards and their Mexican successors carried on a very profitable industry along the bays and

inlets of the gulf. Pearl oysters are yet found in large quantities in the gulf, and it only requires industry, capital, and a force to head off the savage Ceris Indians, to reap fortunes. The process of collecting these gems is simple and is conducted on a small scale by the Indians along the shores of the gulf. The water is clear and transparent and the sandy bottom is very white. The boat is steered slowly along, the men standing in the bow, each with a long stick with an iron or obsidian point to dislodge the oyster. Another man, with his face close to the surface of the water, looks down and notifies them when the boat is near a bed of pearl-bearing oysters. The boat is stopped and the men dive into the waters. In addition to a sharp stick to fight away alligators and devil fish, each diver has a net fastened to his waist, in which he places the oysters as soon as unloosed. The diver usually remains under the surface about one minute. There are usually thirty or forty divers to a boat—these mostly Yaqui Indians, who are paid a percentage of their catch. The owners of the vessels manage to keep the Indians in debt to them by advances, after the manner of the peonage system throughout Mexico. The divers work two hours in the forenoon and three in the afternoon, during the months of July, August and September, which are considered the pearl-fishing or diving season. Guaymas is the most important pearl-fishing point on the coast and the finest gems are found there.

Carmen Island, in the Gulf of California, is a good fishing point for the native Mexicans and Indians. A species of fish is here found which produces an oil which is used by the Indians in mixing paints for their bodies. There are also on this island small lakes of salt, excellent in quality.

In the Terre Caliente, or warm lands, between San Blas and Mazatlan, deer are numerous, also quail, wild ducks, turkeys, wolves and coyotes. The latter, according to the native hunters' stories, catch turkeys by "charming" them out of trees. When the coyote sees a wild turkey perched upon a branch, he promenades around the tree, with his glaring eyes fixed upon his prey. The turkey is an inquisitive fowl and its eye follows the coyote in his walk around; finally, it becomes so dizzy that it falls off the limb!

The aborigines along the Lower California coast use bows, blow-guns, nets and traps in hunting game—the methods pursued by their ancestors centuries ago. In hunting small game they place their traps, form a circle, and advance blowing conch-shells and beating drums. The bow is made of flexible wood, the strings are of sinews of animals, and the arrows are tipped with bone or obsidian. They also use pikes and tomahawks in hunting. Birds are killed by "slings," the missile hurled being a pointed piece of stone. The Ceris Indians on Tiburon Island, in the Gulf of California, use pikes about eighteen feet long with obisdian or copper points. This is the weapon used to keep the "pale face" from landing on their island, and is also used in hunting, according to the statements of men who have visited the upper portion of the island, where the savage Ceris seldom come. They also use a sword about three feet in length, each side of which is sharpened and has toothed edges like a saw, set with obsidian.

The jaguar, or Mexican tiger, is fairly plentiful. This is a fighting animal and is usually attacked only by a large force. This species of "tiger" averages a weight of about two hundred pounds, and is very active in its movements.

A new species of jack-rabbit has been unearthed on the Lower Coast. It is slender and about the size of a California rabbit, but has short steel-gray hair mixed with black, and the tips of its ears are black.

The cougar, or panther, is also found in the heavily wooded and most thinly settled districts in the southwest, as are several other species of the wild cat family, including the beautiful ocelots.

Wild goats and sheep abound on the islands in the Santa Barbara Channel. Professional hunters live on some of these islands and kill for the market. Local sportsmen and tourists also visit the islands, attracted by the stories of game and good shooting. In the Hispano-Mexican days, extensive stock-raisers used these islands as ranges, receiving grants from the general government. After the American occupation, when the Mexican lost his lands under our peculiar system, he abandoned his extensive pastures,

and the remaining sheep became wild. These islands are mountainous and covered mostly with cacti and Mexican grease-brush and pin-oak forests. Some of the spots are almost inaccessible even to the sheep. There is excellent sport in hunting and chasing them from rock to rock, and in seeing the sure-footed animals climb an almost perpendicular height. There is every shade of sheep on these islands—white, black, brown, yellow, mixed, ringed, streaked and striped, like Laban's cattle.

Birds of many kinds are plentiful and some of the species are as yet unclassified. Taken all in all, the sportsman and naturalist has a very enticing field in Lower California—one which will repay extended and careful investigation.

WESTERN FIELD.

The Sportsman's Magazine of the West.

OFFICIAL ORGAN
OLYMPIC ATHLETIC CLUB AND THE CALIFORNIA FISH AND GAME PROTECTIVE ASSOCIATIONS.

PUBLISHED MONTHLY BY
THE WESTERN FIELD CO., (Incorporated)
SAN FRANCISCO, CAL.

Offices; 4 Sutter Street, corner Sansome Street. Telephone, Main 1262.

Registered at the San Francisco Postoffice as Second-Class Matter.

FRANK H. MAYER, - - - - Managing Editor

Matter for publication should be addressed "WESTERN FIELD," 4 Sutter Street, San Francisco, Cal., and not to individuals connected with the magazine. All copy for new advertisements, changes or discontinuances, must be in hand not later than the 10th of the month preceding date of issue, in order to insure attention.

LET YOUR LIGHT SHINE.

SCATTERED throughout this broad domain are thousands of Native Sons—both by birth and adoption—whose experiences afield, ideas on game protection, convictions on any and every one of the things, in short, which pertain to sport and its enjoyment, would make wondrously interesting reading if they could be induced to give them publicity. To this legion of good people we desire to make an earnest appeal.

Has it ever occurred to you, brothers of the rod and gun, disciples of the oar, tiller, racquet and golf club, that you are almost criminally selfish in withholding the light of your valuable experiences from your fellow-men whose walks in life have been perforce in darker ways? That the suppression of your acquired wisdom is virtually grand larceny upon posterity?

WESTERN FIELD offers you a most effectual—and incidentally a very lucrative means of conferring your bounty. Send us your contributions, written in the language you regularly employ. Let them be accompanied by your own photographs for illustration whenever possible. In other words, cast your bread upon the flood of our growing success and it will be returned an hundredfold. We invite contributions from everybody on all topics which come under the province of a distinctively Western journal of manly and womanly sports.

STOP THE SALE OF GAME.

Nine-tenths of all game violations are directly induced by the sale-of-game privilege. No man with a love of field sports in his composition looks upon the often hard labor of hunting as "work"; the very vicisitudes of sport are a pleasure and delight to him, and when he can supplement his field raptures with pecuniary gain his eagerness is intensified. He looks upon what is really a very arduous pursuit as an easy and pleasurable way of making money, and the evil is done. He simply degenerates into an assumed sensualism that would be ludicrous, were it not so lamentably vicious. In a little while he grows calloused by success, and by degrees develops into a law breaker, almost unconsciously, but none the less surely. Sooner or later the element of sport is eliminated by the more absorbing lust for gain, with all its degrading comcomitants. The proof of this is that not one market hunter in a thousand ever regains the plane of clean sportsmanship; the few exceptions to this abundantly prove the rule.

The true sportsman kills for sport; the market hunter for gain. Remove the latter's prime motive, and the desire to kill—now glutted to satiety—no longer enters into the question. He kills no more because there is neither profit nor pleasure in it. Eliminate the pecuniary quantity from any man's consideration and his better nature will be left. It is a fact that there are but few men who would not be ashamed to say what they would do for money in large amounts.

Summed up in a word, the "right" to sell game is not a right, because it is a wrong to every man in the community who is robbed of his heritage to just the extent that his game is sold for the personal benefit alone of the social excresence known as the "market hunter." The prohibition of sale affects not the masses at all, for good ordinary circumstanced people can not

afford to buy game at the usual prohibitive prices. Only the idle rich and the sports-afraid-of-work can benefit by this presently legalized form of robbery, and the people are fast appreciating this fact.

A PROMISING COUNTRY.

FROM time to time during the past decade many interesting, if fragmentary, reports of the great game resources of the country along the lower Colorado River and adjacent to the Gulf of California have been circulated among our sportsmen. With a view to definitely ascertaining the actual conditions of the section in question, WESTERN FIELD has commissioned and equipped an exploring expedition under the charge of Lewis R. Freeman, which will spend a considerable period of time in investigating the actual state of affairs in this veritable *terra incognita*, making maps, taking photographs, and in other ways gathering and preparing data for a comprehensive and exhaustive report.

From preliminary reports already received we are inclined to think that a new and promising field of sport will be opened by our expedition, and we can assure our friends that the information resulting from our venture will be dependable to the fullest degree. In our next number we hope to be able to present the first portion of the expedition's itinerary, which, from indications already at hand, promises to be of unusual interest and value to sportsmen as well as to the general public.

A SUGGESTION.

AMONG other desirable amendments to our present game law, is a clause providing that all fines imposed for the violations of game laws be paid directly into the treasuries of the counties in which the violations were made and convictions secured, instead of being paid into the State fund as now.

Under the present conditions county officials are apathetic and indifferent to a lamentable degree in the matter of securing convictions for game law violations. They argue that there is "nothing in it for the county," and only prosecute because the statutes cannot altogether go disregarded. If such fines were to go into the county funds, however, a marked change in sentiment would develop very quickly. After all, it is only a matter of justice and equity that the county machine of the law should reap the fruits of its own labors. It has all the work to do and gets nothing except a sentimental recompense for its trouble. Give them the money to stimulate them to a greater activity and, our word for it, each individual county will at once be as eager to enforce the law as it is now apathetic and unconcerned. And, besides, these fine moneys logically belong to the counties in the first place.

WORTHY OF ESPECIAL ATTENTION.

THE particular attention of our readers is called to two very important articles which appear in the game protection department of this number. The first, by T. S. Palmer of the U. S. Department of Agriculture, dealing with the local game law question, will be found a peculiarly dispassionate and impartial review of this muchly mooted question and will, we are confident, be read with care and thoughtful attention by both parties to the controversy. It covers all the tenable arguments that can be presented on both sides and we cordially invite the comments and criticisms of all concerned.

The second paper, by Deputy Game Warden Walter R. Welsh, anent the amendment of our present game law, is an honest and forcible exposition of the views of an experienced and intelligent sportsman and is worthy of everybody's careful consideration. *En passant* we may as well state here in all candor that we heartily approve the conclusions arrived at by both authors. Local game laws are a delusion and a snare. What is wanted—not only in the State but in the whole Union as well—is a uniform game law that has not only State but Federal indorsement; and the amendments proposed by Mr. Welsh will receive the unqualified indorsement and support of every man who really has the game interests of the State at heart.

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Scott, Photo.

HE GETS THERE—WITH BOTH FEET!

THE CALIFORNIA GAME LAWS IN BRIEF

(Compiled by Charles A. Vogelsang, Chief Deputy, State Board of Fish Commissioners.)

OPEN AND CLOSE SEASONS IN CALIFORNIA, 1903-1904.

WHITE--Open Season. **BLACK--Close Season.**

BAG LIMIT

Quail, Grouse, Snipe, Curlew, Ibis, Plover, 25 in one day.
Doves, Ducks, - - - - - - - 50 in one day.
Rails, - - - - - - - - - - 20 in one day.
Deer (male), - - - - - - - 3 in one season.

	January.	February	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
DEER,							Jul. 15					
DOVES,		Feb 15										
MOUNTAIN QUAIL, GROUSE, SAGE HEN,		Feb 15										
VALLEY QUAIL, DUCKS, IBIS, CURLEW, PLOVER, RAIL,		Feb 15								Oct 15		
TREE SQUIRRELS,												
TROUT,												
STEELHEAD TROUT,									Sep 10	Oct 16		
SALMON (Above tide-water close season extends to Nov. 15),									Sep 10	Oct 16		
LOBSTER or CRAWFISH (Not less than 9½ in. long),								Aug 15				
BLACK BASS,												
SHRIMP,												
CRAB (No Crab taken less than 6 in across the back),												

N. B.--In some counties the OPEN seasons are shorter
Write to County Clerk or District Attorney.

Fine for violation Game Laws, $25 to $500, and imprisonment.
Fine for violation Fish Laws, $20 to $500, and imprisonment.
Smallest fine for using explosives to take any fish, $250, and imprisonment.

WHAT IS ALWAYS UNLAWFUL

TO BUY, SELL, OFFER FOR SALE, BARTER OR TRADE, AT ANY TIME, ANY QUAIL, PHEASANT, GROUSE, SAGE HEN, IBIS, PLOVER, OR ANY DEER MEAT OR DEER SKINS.

To have in possession doe or fawn skins.
To take or kill, at any time, does, fawns, elk or antelope.
To take or kill pheasants, or Bob-White quail.
To run deer with dogs during the close season.
To shoot half-hour before sunrise, or half-hour after sunset.
To trap game of any kind without having first procured *written* authority from the Board of Fish Commissioners.
To take or destroy nests or eggs of game birds.
To ship game in concealed packages, or *without* your name and address.
To *buy* or *sell trout* less than *one-half pound* in weight.
To take, at any time, sturgeon, or female crabs.
To take abalones less than fifteen inches in circumference.
To take trout or black bass, except with hook and line.
To take salmon, shad or striped bass with a net less than seven and one-half inch mesh.
To use a set net.
To take fish, in any manner, within fifty feet of a fishway.
To take, buy, or sell striped bass less than three pounds in weight.
To shoot meadow larks.
To shoot on enclosed land without permission.

COUNTY ORDINANCES.

BY LEGISLATIVE enactment the various Boards of Supervisors have, in their respective counties, jurisdiction and power to provide, by ordinances not in conflict with the general laws of the State, for the protection of fish and game, and may shorten (but not extend) the open season for the taking and killing of fish and game within the dates fixed by the general State law.

The ordinances as published below are, so far as we can ascertain, correct; changes are, however, liable to occur from time to time, necessitated by new conditions, and we will make such corrections when they eventuate. If in any doubt, please address this office, and information will be gladly given. Where counties are not enumerated in the following list, it is to be understood that no departure from the general State law has been adopted.

El Dorado.—Male deer, September 1 to November 1; tree squirrel, August 1 to October 1; trout in Lake Tahoe and Loon Lake, June 1 to November 1.

Fresno.—Doves, August 15 to February 1; quail, November 1 to February 1; male deer, September 1 to November 1.

Humboldt.—Trout, May 1 to November 1; striped bass, closed until January 1, 1905; barnacle or black brant, October 1 to March 1; Wilson or jack snipe, September 1 to February 15; English or Mongolian pheasant and wild turkey, closed until January 1, 1906; ducks, limit of 25 per day; black sea brant, limit of 8 per day; miscellaneous bag of game birds, not to exceed 40 in number per day's shoot.

Kern.—No game to be shipped out of county.

Kings.—Doves, September 1 to February 15; quail, November 1 to February 15; deer, September 1 to November 1; black bass closed for two years; limit on ducks, 25 per day.

Lake.—Male deer, July 15 to September 15.

Los Angeles.—Doves, July 31 to October 1; male deer, July 15 to September 15.

Madera—Doves, August 15 to February 1; valley quail, November 1 to February 1; male deer, September 1 to November 1; ducks, limit 25 per day; duck selling prohibited; trout limit 10 pounds per day, size limit, 6 inches; black bass, closed for two years.

Marin.—Male deer, July 15 to September 15; doves, August 1 to February 15; quail, October 15 to January 15; tree squirrels, July 1 to February 1. Shooting on county roads prohibited. Killing of larks and other song birds prohibited.

Mendocine.—Male deer, July 15 to October 1.

Merced.—Doves, August 15 to February 15.

Monterey.—Deer, July 15 to October 1. No hounds. Sea gulls and blue cranes prohibited.

Napa.—Deer, July 15 to September 15.

Orange.—Doves, August 1 to February 15.

Riverside.—Male deer, July 15 to September 15.

San Benito.—Male deer, August 1 to October 1.

San Bernardino.—Trout, June 1 to November 1; tree squirrels, limit 5 in one day; doves, August 1 to October 1; wild duck, trout or dove selling prohibited.

San Mateo.—Cottontail and bush rabbit, July 1 to February 1; rail, October 15 to November 16. Rail hunting with boats one hour before or after high tide prohibited. Male deer, August 1 to October 1; trout, limit 100 per day; tree or pine squirrels, prohibited. Song birds protected perpetually.

Santa Barbara.—Male deer, July 15 to September 15.

Santa Clara.—Male deer, July 15 to October 1.

Santa Cruz.—Male deer, August 1 to October 1. All wild birds (other than those recognized as game birds in general law), *except* hawks, owls, bluejays, shrikes, English sparrows and house-finches, are perpetually protected, as are likewise all species of tree squirrels. Black bass cannot be caught before January 1, 1907. Trout limit in one day, 100.

Siskiyou.—Deer, August 15 to October 15.

Sonoma.—Male deer, July 15 to September 1.

Trinity—Male deer, September 15 to October 30.

Tulare.—Trout limit, 10 pounds per day, 6-inch fish; black bass, closed for two years; road-runner killing prohibited.

Tuolumne.—Mountain quail, south of ranges 13, 14, 15 and 16 east, township 3 north, and west of townships 1 and 2, north, and township 1 south range 7 east, October 15 to February 15.

Ventura.—Trout, May 1 to November 1; male deer, August 15 to October 1.

Yolo.—Doves, August 1 to February 1; quail, November 1 to January 1; deer, July 15 to September 15.

Close Seasons for Game in the United States and Canada.

(Date of close season and the first date of open season are given; to find open season, reverse dates.)

	State.	Deer.	Elk.	Moose, Caribou.	Antelope.	Squirrel.[2]	Rabbit.	Quail.	Grouse.	Prairie Chicken.	Wild Turkey.
		MAMMALS.						BIRDS.			
NORTHERN.	Maine	Dec. 16-Oct. 1[1]		Dec. 1-Oct. 15[10]			Apr. 1-Sept. 1	At all times	Dec. 1-Sept. 16		
	New Hampshire	At all times[3]	At all times	At all times		Jan. 1-Sept. 15	Apr. 1-Oct. 1	Dec. 15-Sept. 15	Dec. 15-Sept. 15		
	Vermont	Nov. 1-Oct. 22		At all times			May 1-Sept. 1	Jan. 1-Sept. 1	Jan. 1-Sept. 1		
	Massachusetts	To Nov. 1, 1905				Mar. 1-Oct. 1	Mar. 1-Oct. 1	Dec. 1-Oct. 1	Dec. 1-Oct. 1		
	Rhode Island	To Feb. 1, 1905				Jan. 1-Oct. 15	Jan. 1-Oct. 15	Dec. 16-Oct. 15	Dec. 16-Oct. 16		
	Connecticut	To June 1, 1911				Dec. 1-Oct. 1	Jan. 1-Oct. 1	Dec. 1-Oct. 1	Dec. 1-Oct. 1		
	New York[1]	Nov. 16-Sept. 1	At all times	At all times	At all times	Dec. 1-Sept. 16	Dec. 16-Sept. 16	Dec. 1-Nov. 1	Dec. 1-Sept. 16		
	Long Island	Except 4 days Nov.				Jan. 1-Nov. 1	Jan. 1-Nov. 1	Jan. 1-Nov. 1	Jan. 1-Nov. 1		
	New Jersey	To April 14, 1905				Jan. 1-Nov. 10	Jan. 1-Nov. 10	Jan. 1-Nov. 10	Jan. 1-Nov. 10	Jan. 1-Nov. 10	Jan. 1-Nov. 10
	Pennsylvania	Dec. 1-Nov. 1	Dec. 1-Nov. 1			Dec. 16-Oct. 15	Dec. 16-Nov. 1	Dec. 16-Oct. 15	Dec. 16-Oct. 15	Dec. 16-Oct. 15	Dec. 16-Oct. 15
	Delaware						Jan. 1-Nov. 15	Jan. 1-Nov. 15	Jan. 1-Nov. 15		
	Maryland[1]	Local laws				Dec. 1-Sept. 1	Dec. 25-Nov. 1	Dec. 25-Nov. 1	Dec. 25-Nov. 1		Dec. 25-Nov. 1
	Dist. Columbia	Jan. 1-Sept. 1[4]				Feb. 1-Nov. 1	Feb. 1-Nov. 1	Mar. 15-Nov. 1	Feb. 20-Nov. 1	Mar. 15-Sept. 1	Dec. 20-Nov. 1
	Virginia	Jan. 1-Oct. 1						Feb. 1-Nov. 1[16]	Feb. 1-Nov. 1[16]		Feb. 1-Nov. 1[16]
	West Virginia	Dec. 15-Oct. 15				Jan. 1-Sept. 15	Jan. 1-Sept. 15	Dec. 20-Nov. 1	Dec. 15-Oct. 15	Dec. 15-Oct. 15	Dec. 15-Oct. 15
	Kentucky	Mar. 1-Sept. 1				Feb. 1-June 15		Jan. 1-Nov. 15	Jan. 1-Nov. 15		Feb. 1-Sept. 1
	Ohio	Dec. 16-Nov. 10				Sept. 2-Aug. 1	Dec. 2-Nov. 10	Dec. 2-Nov. 10	To Nov. 10, 1904	To Nov. 10, 1904	Dec. 2-Nov. 10
	Michigan	Dec. 1-Nov. 8[1]	To 1911	To 1911		Dec. 1-Oct. 15		Dec. 1-Oct. 20[10]	Dec. 1-Oct. 20[10]	To 1910	To 1910
	Indiana	At all times				Jan. 1-Aug. 1[12]		Jan. 1-Nov. 10	Jan. 1-Nov. 10	Jan. 1-Nov. 10	At all times
	Illinois	To 1913				Jan. 1-July 1		Dec. 20-Nov. 10	To 1907	To 1907	To 1908
	Wisconsin	Dec. 1-Nov. 1				May 1-Sept. 1	May 1-Sept. 1	To Sept. 1, 1905	Dec. 1-Sept. 1	Dec. 1-Sept. 1	
	Minnesota	Dec. 1-Nov. 11	At all times	Dec. 1-Nov. 11				Dec. 15-Oct. 15	Dec. 15-Oct. 15	Nov. 1-Sept. 1	
	Iowa	At all times	At all times			Jan. 1-Sept. 1		Jan. 1-Nov. 1	Jan. 1-Nov. 1	Dec. 1-Sept. 1	Jan. 1-Nov. 1
	Missouri	Jan. 1-Oct. 1						Jan. 1-Nov. 1	Jan. 1-Nov. 1	Jan. 1-Nov. 1	Jan. 1-Nov. 1
	Kansas				To Mar. 13, 1908			Jan. 1-Nov. 15[11]	Oct. 1-Aug. 15	Oct. 1-Aug. 15[11]	
	Nebraska	Nov. 16-Aug. 15	At all times		Nov. 16-Aug. 15			Dec. 1-Nov. 1	Dec. 1-Oct. 1	Dec. 1-Oct. 1	At all times
	South Dakota	Dec. 15-Nov. 15	Dec. 15-Nov. 15		To Jan. 1, 1911			Jan. 1-Sept. 1	Jan. 1-Sept. 1	Jan. 1-Sept. 1	
	North Dakota	Dec. 1-Nov. 10	At all times	At all times	To Jan. 1, 1911			To Sept. 1, 1905	Oct. 15-Sept. 1	Oct. 15-Sept. 1	
	Montana	Dec. 1-Sept. 1	Nov. 1-Sept. 1	At all times	At all times			At all times	Dec. 1-Aug. 15	Dec. 1-Aug. 16	
	Wyoming	Nov. 15-Sept. 15	Nov. 15-Sept. 15	To Sept. 15, 1912[10]	Nov. 15-Sept. 15			At all times	Oct. 15-July 16	Dec. 1-Sept. 1	
	Colorado	Oct. 1-Sept. 15	To 1907		To 1907			To Oct. 1, 1920[19]	Oct. 21-Sept. 1	Oct. 21-Sept. 1	To 1907
SOUTHERN.	North Carolina[1]	Jan. 1-Oct. 1				Local laws		Mar. 15-Nov. 1			Mar. 15-Nov. 1
	South Carolina	Feb. 1-Sept. 1[1]						Apr. 1-Nov. 1	Apr. 1-Nov. 1		Apr. 1-Nov. 1
	Georgia[5]	Jan. 1-Sept. 1						Mar. 15-Nov. 1	Mar. 15-Nov. 1		Mar. 15-Nov. 1
	Florida	Feb. 1-Nov. 1						Mar. 1-Nov. 1			Mar. 1-Nov. 1
	Alabama[2]	Jan. 1-Sept. 1				Feb. 2-July 1		Mar. 2-Nov. 15	Mar. 2-Nov. 15	Mar. 2-Nov. 15	Mar. 2-Nov. 15
	Mississippi	Mar. 1-Sept. 15						May 1-Oct. 1			May 1-Oct. 1
	Tennessee	Dec. 15-Oct. 1				Mar. 1-June 1		Mar. 1-Nov. 1	Mar. 1-Nov. 1		Mar. 1-Nov. 1
	Arkansas	Feb. 1-Sept. 1[1]						Feb. 15-Nov. 1[1]		Dec. 1-Oct. 31	May 1-Sept. 1
	Louisiana	Apr. 1-Nov. 1					Apr. 1-Nov. 1	Apr. 1-Nov. 1	Mar. 1-Nov. 1	Mar. 1-Nov. 1	Apr. 1-Nov. 1
	Texas	Jan. 1-Nov. 1			To July 1, 1908			Feb. 1-Nov. 1		Feb. 1-Nov. 1	Feb. 1-Nov. 1
	Oklahoma	At all times			At all times			Feb. 1-Oct. 15	At all times	Jan. 1-Sept. 1	Jan. 1-Sept. 1
	New Mexico	Jan. 1-Nov. 1	To Mar. 7, 1905		To Mar. 7, 1905			Mar. 1-Oct. 1	Jan. 1-Oct. 1	Jan. 1-Oct. 1	Jan. 1-Oct. 1
	Arizona	Nov. 1-Sept. 15	At all times		To Jan. 1, 1906			Mar. 1-Oct. 15	Mar. 1-Oct. 15		Nov. 1-Sept. 15
PACIFIC.	California[1]	Nov. 1-July 15	At all times		At all times	Feb. 1-Aug. 1		Feb. 15-Oct. 15[9]	Feb. 15-Sept. 1		
	Nevada	Nov. 15-Sept. 15	At all times	At all times[10]	Nov. 15-Sept. 15			Mar. 1-Sept. 15	Mar. 1-Sept. 15	Mar. 1-Sept. 15	
	Utah	Nov. 1-Sept. 1	At all times		At all times			At all times[1]	Dec. 1-Aug. 15	Dec. 1-Aug. 15	
	Idaho	Jan. 1-Sept. 1	Jan. 1-Sept. 1	At all times	Jan. 1-Sept. 1			Dec. 1-Nov. 1	Dec. 1-Aug. 15	Dec. 1-Aug. 15	
	Washington	Dec. 15-Sept. 15	Nov. 1-Sept. 15	Nov. 1-Sept. 15	Nov. 1-Sept. 15			Jan. 1-Oct. 1[14]	Jan. 1-Sept. 1	Jan. 1-Sept. 1[1]	
	Oregon[1]	Nov. 1-July 15[1]	To Sept. 15, 1904	Nov. 1-July 15[1]	Nov. 1-July 15[1]	Jan. 1-Oct. 1		Dec. 1-Oct. 1	Dec. 1-Oct. 1	Dec. 1-Oct. 1	To Oct. 1, 1905
	Alaska	Dec. 10-Sept. 1		Nov. 1-Sept. 1[1]					Dec. 10-Sept. 1		
	Hawaii							Mar. 1-Sept. 16			
CANADA.	British Columbia	Dec. 15-Sept. 1	Jan. 1-Sept. 1	Jan. 1-Sept. 1			Jan. 1-Sept. 1	At all times	Jan. 1-Sept. 1	Jan. 1-Sept. 1	
	N.W. Territories[15]	Dec. 15-Nov. 1	Dec. 15-Nov. 1	Dec. 15-Nov. 1	Dec. 15-Nov. 1				Dec. 15-Sept. 15	Dec. 15-Sept. 15	
	Manitoba	Dec. 15-Nov. 15	Dec. 15-Nov. 15	Dec. 15-Nov. 15	Dec. 15-Nov. 15			Jan. 1-Aug. 1	Nov. 15-Sept. 15	Nov. 15-Sept. 15	
	Ontario	Nov. 16-Nov. 1	At all times	Nov. 16-Oct. 16[12]		Dec. 16-Sept. 15	Dec. 16-Sept. 15	Dec. 1-Nov. 1	Dec. 16-Sept. 15	To Sept. 15, 1905	Dec. 1-Nov. 1
	Quebec	Jan. 1-Sept. 1[4]		Jan. 1-Sept. 1[1]			Feb. 1-Nov. 1[1]		Dec. 15-Sept. 1[1]		
	New Brunswick	Dec. 1-Sept. 15		Dec. 1-Sept. 15[1]					To May 0, 1905		
	Nova Scotia	To Oct. 1, 1905		Jan. 1-Sept. 15[16]			Feb. 1-Oct. 15		Dec. 1-Oct. 1[8]		
	Newfoundland		To Jan. 1, 1919	Feb. 1-Oct. 21[16]			Mar. 1-Sept. 10		Jan. 12-Sept. 16		

	State.	Dove.	Introduced Pheasant.	Plover.	Snipe.	Woodcock.	Rail.	Duck.	Goose, Swan.
		BIRDS.							
NORTHERN.	Maine	At all times	To Mar. 22, 1911	May 1-Aug. 1	May 1-Aug. 1	Dec. 1-Sept. 15		Dec. 1-Sept. 1[7]	
	New Hampshire	At all times	To Sept. 15, 1905	Feb. 1-Aug. 1[1]	Dec. 15-Sept. 15[1]	Dec. 15-Sept. 15	Feb. 1-Aug. 1	Feb. 1-Aug. 1[1]	
	Vermont	At all times	Nov. 20-Oct. 1	Jan. 1-Sept. 1[4]	Jan. 1-Sept. 1	Jan. 1-Sept. 1		Jan. 1-Sept. 1	Jan. 1-Sept. 1[16]
	Massachusetts	At all times	To Feb. 10, 1905	Mar. 1-July 15	Mar. 1-July 15	Dec. 1-Oct. 1	Mar. 1-July 15	Mar. 1-Sept. 1[7]	
	Rhode Island	At all times	To Oct. 1, 1905			Dec. 16-Oct. 15		Apr. 1-Aug. 15[1]	
	Connecticut	At all times	To June 1, 1906	Apr. 1-Sept. 1	May 1-Aug. 1	Dec. 1-Oct. 1	Apr. 1-Sept. 1[1]	May 1-Sept. 1	May 1-Sept. 1
	New York[1]	At all times	To 1905	May 1-Sept. 1	May 1-Sept. 1	Dec. 1-Sept. 16	May 1-Sept. 1	Jan. 1-Sept. 16	Jan. 1-Sept. 16
	Long Island	At all times	Jan. 1-Nov. 1[1]	Jan. 1-July 1	Jan. 1-July 1	Jan. 1-Aug. 1	Jan. 1-July 1	Jan. 1-Oct. 1	Jan. 1-Oct. 1
	New Jersey	At all times	Jan. 1-Nov. 10	Jan. 1-July 15[7]	Jan. 1-Sept. 1	Jan. 1-Oct. 1[3]	Jan. 1-Sept. 1	May 1-Oct. 1	May 1-Oct. 1
	Pennsylvania		Dec. 16-Oct. 15	Jan. 1-July 15[4]		Dec. 16-Oct. 15[3]	Dec. 1-Sept. 1	May 1-Sept. 1	May 1-Sept. 1
	Delaware	At all times					Feb. 1-Sept. 1	Apr. 15-Oct. 1[4]	Apr. 15-Oct. 1
	Maryland[1]	Dec. 25-Aug. 15	Dec. 25-Nov. 1	May 1-Aug. 15	May 1-Aug. 15	Dec. 25-Nov. 1[3]	Nov. 1-Sept. 1	Apr. 10-Nov. 1	Apr. 10-Nov. 1
	Dist. Columbia	At all times		Apr. 1-Sept. 1	Apr. 1-Sept. 1	Jan. 1-July 1	Feb. 1-Sept. 1	Apr. 15-Sept. 1[4]	Apr. 15-Sept. 1[4]
	Virginia	At all times	Local laws	Jan. 1-July 20	Jan. 1-July 20	Feb. 1-Nov. 1[16]	Jan. 1-July 20[16]	Apr. 1-Oct. 15	Apr. 1-Oct. 15
	West Virginia	At all times			July 1-Mar. 1	Nov. 2-July 15		Apr. 1-Oct. 1	Apr. 1-Oct. 1[16]
	Kentucky	Feb. 1-Aug. 1				Feb. 1-June 20		Apr. 1-Aug. 15	Apr. 1-Aug. 15[16]
	Ohio	At all times	To Nov. 10, 1904	Dec. 2-Nov. 10[17]	Dec. 2-Nov. 10[17]	Sept. 2-Aug. 1	Dec. 2-Nov. 10[17]	Dec. 16-Sept. 1[4]	Dec. 16-Sept. 1[4]
	Michigan	At all times	To 1910	Dec. 1-Oct. 1	Dec. 1-Oct. 1[12]	Dec. 1-Oct. 20[10]		Dec. 1-Oct. 1[14]	Dec. 1-Oct. 1[14]
	Indiana	At all times	At all times			Jan. 1-Nov. 10[10]		Apr. 15-Sept. 1[19]	Apr. 15-Sept. 1[19]
	Illinois	Dec. 1-Aug. 1	To 1908	May 1-Sept. 1	May 1-Sept. 1	Dec. 1-Aug. 1		Apr. 15-Sept. 1	Apr. 15-Sept. 1
	Wisconsin	At all times	To Sept. 1, 1905	Dec. 1-Sept. 1	Dec. 1-Sept. 1	Dec. 1-Sept. 1		Jan. 1-Sept. 1[10]	May 1-Sept. 1[10]
	Minnesota	Nov. 1-Sept. 1	At all times	Nov. 1-Sept. 1[1]	Nov. 1-Sept. 1	Nov. 1-Sept. 1		Dec. 1-Sept. 1	Dec. 1-Sept. 1
	Iowa	At all times		Apr. 15-Sept. 1	Apr. 15-Sept. 1	Jan. 1-July 10	Apr. 15-Sept. 1	Apr. 15-Sept. 1[14]	Apr. 15-Sept. 1[14]
	Missouri	Jan. 1-Aug. 1	Jan. 1-Nov. 1	Jan. 1-Aug. 1		Jan. 1-Aug. 1		Apr. 1-Oct. 1	
	Kansas	Sept. 15-Aug. 1	To Feb. 28, 1907	Sept. 15-July 15				Apr. 25-Sept. 1	Apr. 25-Sept. 1[16]
	Nebraska	Oct. 31-Apr. 15	At all times	Oct. 31-Apr. 15	Apr. 16-Sept. 1			Apr. 16-Sept. 1	Apr. 16-Sept. 1
	South Dakota			May 15-Sept. 1		Jan. 1-Sept. 1		May 1-Sept. 1	May 1-Sept. 1[16]
	North Dakota		To Sept. 1, 1905			Oct. 15-Sept. 1		May 1-Sept. 1	May 1-Sept. 1[19]
	Montana	At all times	At all times					Jan. 1-Sept. 1	Jan. 1-Sept. 1
	Wyoming	At all times	To Sept. 1, 1906	May 1-Sept. 1	May 1-Sept. 1		May 1-Sept. 1	May 1-Sept. 1	May 1-Sept. 1[19]
	Colorado	Sept. 1-Aug. 1	At all times		Apr. 16-Sept. 10[9]			Apr. 16-Sept. 10[9]	Apr. 16-Sept. 10[9]
SOUTHERN.	North Carolina[1]	Mar. 15-Nov. 1			Local laws	Local laws		Local laws	Local laws
	South Carolina[2]	Mar. 1-Aug. 1	To Dec. 22, 1903			Apr. 1-Nov. 1			
	Georgia[5]	Mar. 15-Aug. 15	To Nov. 30, 1905					Feb. 1-Sept. 1[7]	
	Florida							Apr. 1-Oct. 1	
	Alabama	Mar. 1-Aug. 1	To Feb. 8, 1904			Mar. 2-Nov. 15			
	Mississippi	Mar. 1-Sept. 15							
	Tennessee	Mar. 1-Aug. 1	Jan. 1-Dec. 1	Apr. 15-Oct. 1	Apr. 15-Oct. 1	Apr. 15-Oct. 1	Apr. 15-Oct. 1	Apr. 15-Oct. 1[20]	Apr. 15-Oct. 1
	Arkansas	At all times							
	Louisiana	Mar. 1-July 1		Oct. 1-Aug. 1[9]				Apr. 1-Sept. 1[9]	
	Texas	Feb. 1-Sept. 1	To July 1, 1908						
	Oklahoma	Jan. 1-Aug. 1	To Jan. 1, 1904	Jan. 1-Aug. 1					
	New Mexico		To Mar. 14, 1906						
	Arizona		Mar. 1-Oct. 15		Mar. 1-Oct. 15		Mar. 1-Oct. 15		
PACIFIC.	California[1]	Feb. 15-July 1	At all times	Feb. 15-Oct. 15			Feb. 15-Oct. 15	Feb. 15-Oct. 15	
	Nevada	Nov. 2-July 15	To Sept. 1, 1906	Mar. 1-Sept. 15	Mar. 1-Sept. 15	Mar. 1-Sept. 15		Mar. 1-Sept. 15	Mar. 10-Sept. 15[1]
	Utah	Dec. 1-Aug. 15	At all times		Mar. 15-Feb. 15[9]			Mar. 15-Feb. 15[9]	Mar. 15-Feb. 15[9]
	Idaho	July 15-Feb. 15	To Mar. 11, 1907	July 15-Feb. 15	July 15-Feb. 15			Feb. 15-Sept. 15	Feb. 15-Sept. 15
	Washington	At all times	To Oct. 15, 1906[1]	Mar. 1-Aug. 15	Mar. 1-Sept. 1			Mar. 1-Sept. 1	Mar. 1-Sept. 1
	Oregon	At all times	To Oct. 1, 1905[1]	Jan. 1-Aug. 1[9]		To Oct. 1, 1905	Jan. 1-Aug. 1	Mar. 1-Sept. 1[9]	Mar. 1-Sept. 1[9]
	Alaska	At all times		Dec. 16-Sept. 1	Dec. 16-Sept. 1			Dec. 16-Sept. 1	Dec. 16-Sept. 1
	Hawaii	Feb. 1-July 1	To 1907	May 1-Sept. 16[7]	May 1-Sept. 16			Feb. 1-Sept. 16[9]	Feb. 1-Sept. 16
CANADA.	British Columbia		At all times	Mar. 1-Sept. 1				Mar. 1-Sept. 1	
	N.W. Territories[15]				May 5-Aug. 23			May 5-Aug. 23	
	Manitoba	At all times		Jan. 1-Aug. 1[9]	Jan. 1-Aug. 1	Jan. 1-Aug. 1		Jan. 1-Sept. 1	
	Ontario		To Sept. 15, 1905	Dec. 16-Sept. 15	Dec. 16-Sept. 15	Dec. 16-Sept. 15	Dec. 16-Sept. 15	Dec. 16-Sept. 1	May 1-Sept. 15
	Quebec			Feb. 1-Sept. 1	Feb. 1-Sept. 1	Feb. 1-Sept. 1		Mar. 1-Sept. 1[1]	
	New Brunswick		At all times		Dec. 2-Sept. 1	Dec. 2-Sept. 1		Dec. 2-Sept. 1[9]	Dec. 2-Sept. 1[16]
	Nova Scotia		At all times		Mar. 1-Sept. 1[1]	Mar. 1-Sept. 1[1]		Mar. 1-Sept. 1[1]	
	Newfoundland			Jan. 12-Aug. 21	Jan. 12-Aug. 21			Jan. 12-Aug. 21[9]	Jan. 12-Aug. 21[9]

Protected in a few States only.	
Ptarmigan.	
Colorado	At all times
Washington	Jan. 1-Sept. 1[1]
Alaska	Dec. 16-Sept. 1
Quebec	Feb. 1-Nov. 1
Nova Scotia	At all times
Newfoundland	Jan. 12-Sept. 16
Sage Hen.	
Nebraska	Dec. 1-Oct. 1
Montana	Dec. 15-Aug. 1
Wyoming	Oct. 15-July 15
Colorado	Oct. 21-Sept. 1
California	Feb. 15-Sept. 1
Nevada	Feb. 16-July 15
Utah	Dec. 1-Aug. 15
Idaho	Dec. 1-July 15
Washington	Jan. 1-Sept. 1[1]
Reedbird.	
New Jersey	Jan. 1-Sept. 1
Pennsylvania	Dec. 1-Sept. 1
Delaware	Feb. 1-Aug. 25
Maryland	Nov. 1-Sept. 1[1]
Dist. Columbia	Feb. 1-Sept. 1
Curlew.	
New Jersey	Jan. 1-July 15
New York	May 1-Sept. 1[1]
Virginia	Jan. 1-July 20
South Dakota	May 15-Sept. 1
Nebraska	At all times
Wyoming	May 1-Sept. 1
Colorado	Apr. 16-Sept. 10[9]
Tennessee	Apr. 15-Oct. 1
California	Feb. 15-Oct. 15
Nevada	Mar. 1-Sept. 15
Hawaii	May 1-Sept. 16
Quebec	Feb. 1-Sept. 1
Newfoundland	Jan. 12-Aug. 21
Crane.	
Nebraska	Apr. 16-Sept. 1
South Dakota	May 1-Sept. 1
North Dakota	May 1-Sept. 1
Colorado	Apr. 16-Sept. 10[9]
Nevada	Mar. 1-Sept. 15
Washington	Mar. 1-Sept. 1

[1] Certain local exceptions. [2] Certain species. [3] Except month of July. [4] Except Mar. 15-Apr. 21. [5] Except month of April. [6] Sale. [7] Except month of March. [8] Upland plover only. [9] Altitudes above 7,000 feet, May 1-Sept. 15. [10] Except unorganized Territorie, in which the seasons are as follows. Deer, elk, caribou, mountain sheep, mountain goat, Apr. 1-July 15 and Oct. 1-Dec. 1, musk ox, Mar. 20-Oct. 15, grouse, prairie chicken, Jan. 1-Sept. 1, duck, goose, swan, Jan 15-Sept. 1. [11] Except July 16-Oct. 1. [12] Also Oct. 1-Nov. 10, unless permit be obtained. [13] Except certain species, Mar. 2-Apr. 11. [14] Except certain species, Mar 2-Apr. 11. [15] Caribou protected in Maine to Oct. 15, 1905. [16] Moose only. [17] Goose only. [18] Swan North Dakota, to Sept. 1, 1905, Nevada, Wisconsin, and Wyoming at all times. [19] Caribou only. [20] Under the old law, which still stands. [21] Except Aug 1-Oct. 1, caribou only; moose protected to Jan. 1, 1912. [22] Except Mar. 10-Apr. 21. [23] Except south of Canadian Pacific R.R. between Mattawa and Port Arthur, Nov. 16-Nov. 1. [24] Except crested quail, to 1907. [25] Except ecra. [26] Except July, Aug, and Sept. [27] Except Oct. 1-Dec. 15. [28] Except April 10-22. [29] Caribou protected in Nova Scotia to Oct 1, 1905. [30] Swan only. [31] Except west of Blue Ridge, Jan. 1-Nov. 1. [32] In twenty counties to Mar. 18, 1906. [33] Except wood duck, Mar. 1-Aug. 1.

* Laws for 1903 not yet received.

LOCAL GAME LAWS, THEIR ADVANTAGES AND DANGERS.

By T. S. Palmer.

Assistant in Charge of Game Preservation, U. S. Department of Agriculture.

GAME protection in California dates from 1852—two years after the admission of the State to the Union. From the standpoint of legislation the first half century has been marked by five important steps: (1) The enactment of the first local law on May 1, 1852; (2) The enactment of the first general game law on May 13, 1854; (3) The passage of the County Government Act in 1897; (4) The revision of the general game law with its bag limits and anti-sale provisions in 1901; and (5) the adoption of a constitutional amendment relating to game on November 4, 1902. Under the first law game was protected in only twelve counties from Monterey to Sonora and east to Sacramento, namely: Monterey, Santa Cruz, Santa Clara, San Francisco, Contra Costa, San Joaquin, Sacramento, Yolo, Solano, Napa, Sonoma, and Marin. Two years later protection of deer, elk, antelope, quail, partridge, mallards, and wood ducks was extended throughout the State. From time to time special acts affecting certain counties were passed and amendments were made to the general game law. In 1897, under the County Government Act, boards of supervisors were authorized to shorten seasons or make regulations not inconsistent with the general game law, and in 1901 a contitutional amendment was passed authorizing the division of the State into special fish and game districts.

The adoption of this amendment in 1902 and the changes which have been made during the present year in North Dakota, by dividing the State into two warden districts for administrative purposes, and in Texas, Tennessee, and Virginia, by the adoption of general laws in place of the local statutes previously in force, have renewed interest in the subject of local game legislation and its history.

HISTORY OF LOCAL LEGISLATION.

In colonial times and in the early part of the last century local legislation was much more general than at the present day. In New York the game law of 1705 covered but five counties—Kings, Queens, Richmond, Suffolk, and Westchester—and each of these counties to-day insists on having some local provisions different from those of the general game law. The early laws in Pennsylvania, Maryland, and Virginia covered a comparatively small part of the present area of those States, but as time went on new counties were created, with privileges similar to those already in existence, thus multiplying the local fish and game laws. In 1849 New York (laws of 1849, chap. 194, p. 293), went so far as to repeal its general law and turn over the protection of fish and game to county boards of supervisors. For ten years this policy remained unchanged, until the adoption of a general law in 1859, repealing all acts inconsistent therewith, but not until 1892 was the County Act finally repealed (Laws of 1892, chap. 488, sec. 272). To-day New York has a practically uniform set of laws throughout the State, excepting the counties on Long Island and, in the case of a few game birds, certain counties in other parts of the State. In Pennsylvania all the local game laws were repealed on the adoption of the constitution of 1874, and in Kentucky twenty years later, when its constitution of 1894 was adopted. In 1895 New Jersey was divided into two game districts, a northern and a southern, but these divisions were abandoned a year later (Acts of 1896, chap. 169). The most recent experiment in district legislation is in North Dakota. During the present year the State has been divided into two districts, with a game warden in charge of each, for administrative purposes, but the close seasons and other provisions for the protection of game are still uniform throughout the State.

Tennessee with ninety-six counties, and Virginia with ninety-nine, formerly had separate game laws for each county, and so numerous did these laws become that a year ago in these two States, Maryland and North Carolina, they outnumbered those of all the rest of the United States. Such a condition is chaotic and defeats practical protection. The varied restrictions are so great in number that they are known to comparatively few, and enforcement is almost impossible, even in such important matters as shipment and sale. Maryland and North Carolina still retain this system, but during the present year both Tennessee and Virginia have abandoned it and have enacted laws that are uniform throughout the State.

The tendency of the present time is strongly in the direction of uniformity, not only in the laws of each State considered separately, but in those of adjoining States. This is shown by the movement in favor of abolishing spring shooting by closing the season on the 1st of January; prohibiting the sale of woodcock, grouse, and quail taken in the State, now adopted by Massachusetts, Connecticut, Rhode Island, and New York; licensing hunting by residents, prevalent in twelve States, chiefly in the northwest, and by non-residents, prevalent in two-thirds of the United States, and all of the Provinces of Canada; adopting a practically uniform law protecting non-game birds, now in force in twenty-seven States; and prohibiting the export of game, effective in all but two of the States. Thus in certain directions some progress has been made toward the adoption of uniform laws in adjoining States, which may in time result in the practical adoption of the scheme proposed by Charles Hallock in 1897, which was to divide the United States into three concessions, in each of which the laws were to be as uniform as possible. In this connection mention should be made of the attitude of some of the Canadian Provinces, which recognizes the importance not only of State but of international uniformity. Ontario in 1900 adopted a statute providing that when protection has been or is about to be extended to any migratory game bird in any two or more States lying south of Ontario, one of which is New York, Pennsylvania, or Michigan, the Lieutenant Governor-in-Council may extend protection to such bird for the same period during which it is protected in the States. Further than this, the Canadian Provinces represented in the North American Fish and Game Protective Association are as far as possible conforming their seasons to those of adjoining States.

So strong is the sentiment in favor of uniform laws that in some States the principal has been incorporated in the constitutions. Thus the constitutions of Colorado, Illinois, Kentucky, Nebraska, and North Da-

kota specifically prohibit local fish and game legislation; those of Montana, Nevada, Ohio, and ten other States forbid it under the general prohibition of local legislation; and an act of Congress passed in 1886 (24 Stat. L., 170), expressly prohibits it in the Territories. In all, eighteen States and Territories of Arizona, New Mexico, and Oklahoma, are at present restrained from enacting such legislation.

On the other hand, twenty-seven States, while not denying the right of the legislature to pass such laws, in most cases do not favor their enactment. Provisions affirmatively authorizing local game laws are found only in the constitution of California (adopted in 1902), of Tennessee (adopted in 1896), and of Texas (adopted in 1876), and it is significant that California has as yet taken no action under her amendment, while both Tennessee and Texas have abandoned the policy of local legislation. At present local game laws prevail in only three or four States—Maryland, North Carolina, Mississippi, and possibly Alabama. In Maryland and North Carolina almost every county has its own law, and in Mississippi game protection has been entrusted to county boards of supervisors under an act of the legislature passed in 1871, although the State subsequently, in 1876, enacted a general law containing a few provisions. In a few other States local legislation is in force to a limited extent. In New York special seasons have been established for Long Island and certain counties in various parts of the State; in Oregon, for the regions east and west of the Cascades; in Virginia, for those east and west of the Blue Ridge; in Kansas, for the eastern section of the State; and for a few counties or for certain kinds of game, in Arkansas, Connecticut, Florida, Maine, Massachusetts, Michigan, New Hampshire, South Carolina, Washington, and Wisconsin.

J. Fullerton, Photo.

KILLED "IN THE VELVET" (OUT NATURAL SEASON), THE RESULT OF ILL-ADVISED LOCAL LAWS.

ADVANTAGES OF LOCAL LEGISLATION.

Local game laws undoubtedly have certain advantages over general laws, and for this reason have been popular in certain parts of the United States. In States of large area, or those which have varied topographic conditions, it is difficult to adjust a general statute to meet the needs of different sections of the State. If certain kinds of game, especially nonmigratory species, have become rare in some localities, or if foreign species have been introduced, it may be desirable to extend protection to them for a term of years without including other sections. Thus in New Hampshire deer are scarce in some parts of the State and are consequently protected at all seasons, while in two or three counties they are sufficiently abundant to warrant a short open season. The success of the introduction of Mongolian pheasants depends upon the protection which can be given the birds until they obtain a foothold in their new surroundings, but when they have become abundant, as in western Oregon, an open season may be established with advantage in some counties while continuous protection is still necessary in others. A third advantage lies in the comparative ease with which a local game law can be passed, so that changes may be made when necessary, and defects corrected as they become apparent.

Local game protection is undoubtedly more flexible than any other, but the demand for it has in view chiefly the regulation of seasons. It loses sight of the fact that the question of open and close seasons is a comparatively small part of modern game legislation, which in reality comprises four important general subjects: (1) Laws regulating the time of capture of game by fixing open and close seasons; (2) those restricting methods of capture by prohibiting the use of nets, traps, swivel guns, steam launches, etc.; (3) those regulating the purposes for which game may be captured by prohibiting market hunting, sale, shipment out of the State, etc.; (4) those relating to enforcement of game laws, organization of fish and game commissions, regulation of game preserves, employment of wardens, provisions for a game protection fund, for enforcing the laws, etc. While there is some rea-

son for seeking local legislation for the first group, there is no reason why the numerous other provisions just mentioned, as well as the protection of insectivorous birds, should not be uniform throughout the State; on the contrary, there is every reason why they should be the same in all counties.

DISADVANTAGES OF LOCAL LEGISLATION.

From what has been said in reviewing the history of local legislation, it is apparent that local laws have come into existence in two ways—either by the gradual growth of States and the organization of new counties, each with its own laws, or from a demand for special regulations in States of diverse topography.

But whatever the advantages of local legislation may be, they are more than offset by certain disadvantages, which may be defined as (1) needless expense in enactment and publication; (2) confusion due to numerous regulations, subject to frequent amendment; (3) impossibility of enforcing unstable or conflicting regulations of adjoining counties.

The expense of enacting and publishing local laws is no inconsiderable item. In North Carolina, in 1901, thirty-eight game laws were enacted, and in 1903 no less than fifty-four—an average of one for nearly every day in which the legislation remained in session, and more than should have been necessary for all the States in the Union. When it is considered that this is simply the record of acts approved and not that of the much greater number of bills introduced, and that each bill is read several times in House and Senate and referred to committees before final passage, it can readily be seen that much valuable time of the legislature is taken up in simply passing restrictions that relate to killing a few birds in certain counties, and are likely to be changed at the first opportunity. The official compilation of existing fish and game laws of Maryland fills more than 100 pages of fine print, while the corresponding compilation of the laws of California, printed in full, fills but forty pages somewhat smaller in size. So serious is the burden of local legislation, even in New York, that it was made the subject of special consideration in the last annual message of the governor. In order to reduce the expense of this item it was suggested that questions of fish and game protection should be regulated to the boards of county supervisors, but this suggestion, which implied a repetition of the experiment of fifty years ago, failed to meet with approval.

The confusion resulting from local legislation is well shown in the case of some of the Eastern States. Maryland, with twenty-three counties and a total area of only one-thirteenth that of California, has at present thirteen different close seasons for quail. North Carolina, with an area one-third that of California, has no less than nineteen. These seasons, it should be remembered, apply to only one of several kinds of game protected in the State, so that the total number of regulations now in force is very great. North Carolina, since 1883, when the last code was published, has been constantly amending her fish and game laws, and in the intervening twenty years has enacted several hundred changes, so that it is practically impossible for any one without a complete set of the statutes to ascertain what the existing game law is even in his own county. If the provisions of the law are not known, effective enforcement can hardly be expected. Moreover experience has shown that under certain circumstances it is almost impossible to enforce a game law when the violation is committed by a friend or neighbor of the warden. To meet such contingencies, provision should be made for transferring an officer who is free from local friendships and prejudices from another part of the State; but this is impossible if each county is under a separate and distinct administration. Moreover, if the best results are to be attained, all local wardens and deputies should be under the direction of some one State officer or commission, and not under that of local boards of supervisors, so that the advantage of a stronger and more effective organization may be secured.

THE CALIFORNIA CONSTITUTIONAL AMENDMENT.

Neither in the original constitutional of 1849 nor in the constitution of 1879 did California incorporate any direct prohibition against local fish and game legistion, and from the passage of the first law down to the present time, the legislature has at various times recognized the demand for local laws. Under the County Government Act of 1897, however, such legislation was surrounded with wise restrictions. The constitutional amendment relating to fish and game, which reads:

Article IV, Section 25½—"The Legislature may provide for the division of the State into fish and game districts, and may enact such laws for the protection of fish and game therein as it may deem appropriate to the respective districts.

apparently grants no new powers, but merely authorizes action which has hitherto been impossible but which has not thus far received the approval either of the State Commission or of the more conservative sportsman, who realizes its full effects.

While it was doubtless the intention of the framers of this amendment to divide the State into a few districts of similar topographic or climatic conditions, and thus provide suitable open seasons for widely separated localities, authority has been granted for going very much further. The provision is without a parallel in the constitutions of any other State except those of Tennessee and Texas, already referred to. No limitation is placed on the number of districts which may be created, and no restriction of any kind on the legislation which may be enacted. It is possible not only to organize separate districts for each county in the State and to pass special laws for them, in which case there would be fifty-seven separate game laws, but single townships can be organized into local game districts with special laws. It is even conceivable that a group of individuals might acquire title to a lake or to certain land suitable for a preserve and succeed in securing the passage of a bill creating a special game district for this preserve, with such liberal regulations and long open season that shooting could be enjoyed throughout most of the year. Such action would inevitably result in the rapid depletion of game in the surrounding region, particularly in the case of migratory shore birds and waterfowl, and would almost completely nullify any efforts at protection in adjoining districts. Under such an extreme case class legislation of the worst type would result. While such a condition is improbable it is not impossible, and the annals of game protection in other States unfortunately show how far the game preserve idea can be perverted from its legitimate purpose under the dictates of selfish or unscrupulous persons. In short, the districting scheme may be carried so far as not only to introduce confusion in the game laws, but to make their enforcement almost impossible, and to grant privileges to certain localities or individuals which would result in injustice to the citizens at large.

CONCLUSIONS.

The demand for districting the State is undoubtedly strong in certain quarters, and on its face it may appear to be more or less justified; but the evil results of such action can be clearly seen by a careful consideration of the history of local legislation, just outlined. It is a significant fact that Tennessee, with a precisely similar constitutional amendment, after an experience of seven years, and Texas after an experi-

ence of twenty-seven years, have voluntarily abandoned the system of game districts.

The constitutional amendment of 1902 was evidently adopted in response to a sentiment that uniformity in close seasons for game was out of the question in a State like California, 700 miles in length extending through nearly ten degrees of latitude, and with varied climatic conditions existing along the coast, in the hot interior valleys and deserts, and on the snow-clad summits of its mountains, nearly 15,000 feet above the sea level, and that to meet the difficulty the State should be divided into districts. It is not contended that the same conditions hold for capture of game in the redwoods about Humboldt Bay and on the Colorado desert, or in the bottom of the San Joaquin Valley and on the summits of the Sierras; but in the contention that each of these sections of the State should have separate and distinct laws some of the fundamental principles of game protection are entirely lost sight of.

Game protection originally consisted almost exclusively of prohibitions of killing of a few animals and birds during the period of reproduction, and the open seasons, which began as soon as game had reached maturity, continued until the beginning of the breeding season in the following spring. Little attention was paid to the methods by which game was captured, and restrictions against sale or export, or provisions for enforcing the laws were almost unknown. With the increase of hunting, the improvement in firearms, the adoption of breech-loading guns, smokeless powder, long-range rifles and "pump guns" additional restrictions formerly unnecessary have now become indispensable. It is no longer possible, under ordinary conditions, to permit continuous hunting from the time game reaches maturity until the beginning of the next breeding season without almost exterminating a given species in the course of a few years. Open seasons have therefore been materially shortened, in some cases to only a few weeks in length. Thus the open season for quail has been reduced to three weeks in Ohio; to thirty days in Idaho, Nebraska, New York and Ontario; and to sixty days in Connecticut, Iowa, Massachusetts, Missouri, Oregon and Pennsylvania. In the case of big game the restrictions are even more stringent. Long Island counties allow but four days for hunting deer; Minnesota and Wisconsin, three weeks. The question of the time of the open season, therefore, is much less important than formerly, and brief open seasons may be made early or late for the sake of uniformity or other reasons, instead of beginning as soon as the species reach maturity, as was formerly the case.

Never before has California had more comprehensive laws for game and never have they been better enforced. The progress made in recent years should not be jeopardized by any action which may introduce needless confusion and perhaps lead to abuses, merely for the sake of accommodating the open seasons to the needs of districts in which diverse conditions prevail. That some flexibility is indispensable is evident, but this flexibility already exists in the provisions of the County Government Act. It should be possible to modify the close seasons under the general law so that they will fit fairly well the needs of different sections of the State. They may perhaps be made somewhat longer than would be deemed prudent unless safeguarded by provisions establishing bag limits and prohibiting market hunting, sale and export, but the privilege of selecting the months or weeks, within prescribed limits, which more nearly suit their needs, may be safely left to the counties.

Amendment of the game laws should not be hasty or ill-considered. It is as yet too soon to appreciate the full effect or the possibilities of the general game law of 1901, which may perhaps be modified to advantage in some details. But not until the present system has been thoroughly tested and pronounced a failure should it be abandoned in favor of a policy which offers so little real advantage, and which, in the light of experience elsewhere, will result in uncertainty, confusion and disappointment.

Photo by Dall De Weese.

IN THE ALASKAN WILDS.

OUR GAME LAW AND SOME DESIRABLE AMENDMENTS OF IT.

By Walter R. Welch.

THE protection of California game and fish should appeal to every man who has any interest in the future welfare of the State, whether he be farmer or sportsman. It is only of late years that the subject has been brought before the people for their serious consideration.

Casting about us, we find that thirty of our States and Territories have, in whole or in part, forbid the sale of game, and that in all the States and Territories of the Union, as well as the Provinces of Canada and British Columbia, stringent laws have been passed, and liberal appropriations have been made to preserve their game and enforce their laws.

What has been the cause of this great and active interest in protecting the game and fish? Why should the people take more interest in their game and fish to-day than they did ten or twenty years ago? Simply because they have begun to realize the great value of this grand heritage and note its destruction, and, realizing that once destroyed it would take years and years and thousands upon thousands of dollars to replace it, have decided that prompt action is necessary to preserve what we have left.

To the farmer, the preservation of the game on his farm is a matter of more serious consideration than is generally supposed. Though he care nothing for hunting himself, he may derive a benefit from the game on his farm, provided it is properly preserved. He will find a knowledge of the game laws and their enforcement valuable in several ways: The game will increase, as will other birds protected by law, which destroy the insects which injure his crops.

The privilege of hunting on the farmer's lands is a valuable asset, which may be made to pay his taxes or a neat sum in a cash return. In many localities in California to-day, good returns are derived from what the farmer receives from sportsmen for the privilege of shooting on his lands; besides he is able to keep irresponsible persons off his farm, protect his stock and fences from injury, and prevent shooting out of season.

Some would say, "You are advocating a law for the rich, and those favored few who are able to pay for the privilege of shooting." Not so. There are thousands upon thousands of acres of wild, uninclosed. and government land in this State upon which all may shoot. This privilege is extended to all, rich and poor alike, and they need ask no one for the privilege to shoot, fish, or camp thereon; all that is required of those who avail themselves of this privilege is that they obey the laws enacted with a view of protecting the game and fish to be found therein, in order that its supply may be perpetuated.

One of the principal factors which has played a very important part in the destruction of our game is the privilege that has heretofore been granted to sell game. This privilege entices the market-hunter to go afield every day of the open season and shoot from daylight until dark and from dark until daylight for the few dollars the game may bring him in the markets of the large cities.

According to decisions of our highest courts, "Game is the property of the people and the State in their collective sovereign capacity," and therefore, like all other public property, it should be protected for the public good by wise and just laws; for, under proper management it would become coupled with our great forest reserves, one of the chief attractions to the State, and may be developed into a revenue. Its chief value lies not so much in what it may bring in the markets or to the hunter in dollars and cents as in the benefits it confers on the people at large by furnishing them a means of recreation and health. As a rule, people in the pursuit of game or fish spend far more than the value of the game or fish they kill, and, becoming familiar with some particular locality in which they find their favorite sport, locate there permanently, the natural resources of this particular locality, which otherwise would have remained practically unknown, having been brought to their notice in the combined pursuit of pleasure and game.

Maine offers an example of the benefits which a State may derive by properly protecting her game and fish. She now estimates that upwards of $6,000,000 is spent annually within her borders by sportsmen from outside States in the pursuit of game.

We are often called upon to contribute sums of money to advertise the attractions of this State or some county in it. One of the greatest attractions of any State or county is its supply of game and fish, and this attraction will cause the average man to visit and locate in the well-supplied game locality in preference to any other.

To secure these benefits special laws are necessary; for, without such laws game would soon be exterminated. But, in order to secure their strict enforcement, it is necessary that they should be generally understood and supported by public sentiment, otherwise they will fail to accomplish the object of their enactment.

The most difficult problem to cope with in this State is that which relates to the sale of game. As heretofore mentioned, thirty States in the Union, after carefully considering the subject, have found it necessary to stop the sale of game, and all the States and Territories, as well as the Provinces of Canada and British Columbia, have placed a limit on the number of game birds or animals that one may take in one day or year.

The sale of game places a bounty on its head for its destruction, the same as a bounty paid by a State or county on the scalp of a coyote, or other animal or bird that the people may wish to have exterminated.

The sale of game does not affect the members or owners of large private shooting preserves, or the owners of land where shooting is prohibited, but it does affect us, the members of one of the greatest sportsmen's clubs in the State, if not in the world. The sportsman who belongs to no private preserve club, the sportsman who owns no land, the sportsman who depends upon the wild, uninclosed, and government lands to be found in this State as his preserve, is the only one whose game suffers by permitting game to be sold.

A very errroneous understanding of our present game law prevails to-day in this State. The general impression is that the non-sale of game and limiting the bag favors the rich. This is not so. The non-sale of game is a direct benefit to the poor and middle classes, for the poor never buy game. All the game ever enjoyed by the poor is what they themselves take in the field, and therefore the greater the supply of game, the greater are their chances of securing their share of it; and, as the non-sale of game is supposed

to insure a greater supply, therefore are the poor to be benefited. As our laws are supposed to work the "greatest good to the greatest number," this rule should apply in this case.

Let us consider the private preserves of a few hundred acres that a few gentlemen have secured for the purpose of enjoying the sports to be found afield with rod and gun. We find the ponds have been baited for the ducks, and that the game birds and animals have been cared for as well; we find that men are employed to keep off poachers and destroy the "varments" that are detrimental to the welfare of the game, and to take care generally of the game and fish to be found on the preserve, and see that they are not disturbed or molested during the breeding season.

Now, let us take a look at the by-laws of these clubs. We find that it costs a neat sum per annum to be a member, and that the membership is limited to say thirty; we find that any member who violates any of the State laws relative to the protection of game on the preserve is subject to heavy fine or expulsion from the club; we find that some of the seasons for some of the game or fish to be found on the preserve have been made shorter than the State law, and that a limit has been placed, not only on the number of fish or game one may take in one day, but also that he is limited to a certain number of days per week or month that he is entitled to shoot on this preserve, and that he sell no game killed on the preserve under penalty of fine or expulsion. Nevertheless, we find the membership roll full, and names on the waiting list anxious to become members.

Let us similarly consider *our* game and fish preserves —for I maintain that our citizenship makes us members to one of the greatest game and fish preserves in the world. We find that this great preserve of ours is about 750 miles long by 300 miles wide, and embracing in it are 155,980 square miles of land, equalling 99,827,200 acres of fields and streams.

Let us give a thought to our great lakes, our great rivers and bays, our timber-clad mountains and fertile valleys, all of which should be full of fish and game, and let us realize that each one of us, be he rich or poor, is a member of this great game and fish preserve. Were we to turn to our membership list, we would find that we have enrolled upon it nearly 1,500,000 members, and that the members of this great game and fish preserve of ours are quite wealthy, their total wealth aggregating the magnificent sum of $1,290,750,465. We find that we became possessed of this great game and fish preserve on September 9, 1849, but not until 1871 did we take interest enough in the value of our game and fish to attempt to preserve or protect same, and not until March, 1900, was anything done in a practical way toward such preservation.

Notwithstanding our great wealth, we find that we have appropriated only the paltry sum of $7,500 per annum for the purpose of patroling the fields and streams and protecting the game in this great game preserve of ours. We find that our game has been sadly neglected and overlooked, and that it is fast disappearing.

It can be plainly seen that with the sum of only $7,500 to be devoted to the purpose of patroling a State as large as is California, very little of that which should be, can be accomplished, and the people should see to it that the next Legislature make an appropriation of not less than $20,000 per annum to be devoted to the purpose of patroling the State and strictly enforcing the laws relative to the protection of game and game fish in every county in the State. The mountain districts and remote parts of this State should receive a great deal more attention than it has ever been possible heretofore to give them, owing to the limited and small amount set aside for that purpose.

I have often been requested to express my views as to what changes are necessary in our present system of game laws—as the time has arrived when some changes should be made in order to give our game better protection. From an experience gained afield with rod and gun in this State for many years, it is my opinion that if it is the real intention and desire of the people to protect and preserve their game in order that the present supply may be perpetuated, then the sale of all game should be by the next Legislature prohibited—for there is no agency so well calculated to protect game as to prohibit its sale.

Each bird or animal shot for food or sport, of every kind and character, should have a close season placed upon it for its protection, as well as the protection of other and perhaps more valuable game.

A reasonable limit should be placed on the number of all the game birds or animals that can be legally taken or possessed in one day or year.

A law should be enacted, providing that every person desiring to shoot deer in this State should first procure from the proper authority three tags—in duplicate—at a cost of say, 50 cents, and be compelled by law upon killing a deer to cancel one tag by fastening the tag to the deer and detaching the duplicate and forwarding same to the State Game Commission, together with the information as to the date and place of the killing. By this system a small revenue could be derived by the State—besides the valuable information as to when, where, by whom, and how many deer had been killed in the State each year. A law should be passed providing for the payment of a license for the privilege of hunting in this State. This is a question worthy of serious consideration.

I would recommend that a law be passed in this State providing that every person not a citizen of the United States pay a license of not less than $25 per annum for the privilege of hunting in this State and that a law be passed providing that all persons hunting in counties other than the county in which they reside, pay a license of 50 cents per annum for each county in which they desire to hunt outside of the county in which they reside.

This system of license has been successfully carried out in the State of Wisconsin, and last year that State derived a revenue of $80,000 for the protection of its game from that system alone.

This system of license would work no great hardship or expense to the sportsmen of this State, but it would be the means of deriving quite a revenue to the State, which could be applied to patroling the State and protecting the game, besides it would be the means of keeping the non-tax paying foreigner and irresponsible persons out of the field, which would mean a great deal toward the protection of our game.

Should it be deemed unwise at this time to stop the sale of all game, then I would suggest that a law be passed compelling all persons who desire to resell game to pay a license for that business, and that they be compelled by law to keep an accurate account of all game received by them, together with the name and address of the shipper and the number and kind of game, and that they file each month with the Game Commissioner a detailed report containing this important information, which would be valuable in many ways.

The open and close seasons as they exist under our present game law are, I think, about as near correct as it is possible to make them. The penalties for violating any of these laws should be made severe, thus removing any inducement to violate them and the appointment of wardens to execute these laws should not be influenced by politics and those appointed to fill such positions should be men known to have a general knowledge of the game and fish to be found in this State, and to be in sympathy with its protection. The time has arrived in this State

when stringent laws are required and are necessary for the protection of our game.

These laws should be carefully drawn and considered before their passage, but once passed they should be srictly and vigilantly enforced, otherwise the passage of our game will, in a few years, have to be chronicled.

DUCKS ARE GROWING SCARCER.

WITH the exception of a few localities where an abundance of natural or baiting feed causes them to gather, ducks this season show a very marked decrease in numbers. This is not at all strange. On the contrary, this constant decrease is only what we must expect under existing conditions. The population of California is about one and a half millions. Of this, 700,000 may be termed urban, while the other 800,000 are country residents and inhabitants of the small country towns, and may properly be termed rural. It is not difficult to make a reasonably close estimate of the number of ducks consumed by the urban population of the State. The sales in the markets and those killed by the sportsmen of the cities amount, in round numbers, to 2,500,000. Inasmuch as there are large sections of the State where but few ducks are to be found we will divide the 800,000 rural residents into halves. One-half of these reside where ducks are quite plentiful and it is safe to say that they will average two birds each per month during the open season, or a total of 3,200,000. Inasmuch as the average consumption of the urban residents is seven-eighths of a duck per month it will be a low estimate to figure the other half of the rural citizens at the same ratio, which will give 1,400,000 more; making a grand total of 7,100,000 as the annual consumption of these birds. With this annual drain, it is quite evident that there must be a more rapid decrease in the future than there has been in the past when the supply was much greater than at the present and the yearly slaughter was much less. The argument that ducks are migratory and that, therefore, the number killed does not affect the supply, is fallacious. A dead duck breeds neither here nor elsewhere. Besides, migratory birds always migrate to and from the same localities. The cinnamon teal (*Anas cyanoptera*) is quite plentiful in Southern California, but is rarely seen in the central portions and never in the far northern. The fulvus tree duck (*Dendrocygna fulva*) rarely comes as far north as San Francisco, although it is abundant in Mexico and Arizona, and quite often is seen in southern California. The dusky duck (*Anas obscura*) is common from the Atlantic coast to the Mississippi, but is unknown farther west. The Florida black duck (*Anas fulvigula*) ranges from Florida to Louisiana, but is rarely found further north than these States. The blue-winged teal (*Anas discors*) is common all along the Atlantic coast and as far west as the Rocky Mountains. The same is true of the American golden eye (*Glaucionetta Americana*), while its cousin, Barrow's golden eye (*Glaucionetta islandica*), breeds on the main land and migrates to the Pacific islands. The old squaw (*Clangula hyemalis*), the harlequin duck (*Histrionicus histrionicus*), and the American scoter (*Oidemia Americana*) are all common on the Atlantic, but are rarely ever seen on the Pacific. The ducks which return to us in the fall are the same birds which left us in the spring, returning with their young to their same old haunts. Our only source of supply are those which we allow each spring to return to their breeding grounds. As these grow less and less from excessive killing, so will the supply diminish upon each recurring fall. No bank account can last if the annual drafts upon it are greater than the interest that it can annually earn. No game supply can continue if the number killed each season is greater than those that are left can reproduce in the next.

The preservation of this splendid food supply is certainly worth serious consideration. These ducks will certainly average 1½ pounds each, which would make the consumption 10,650,000 pounds, which—at the price of mutton—would be worth considerably over $1,000,000. We cannot afford to let this natural resource be wiped out through either carelessness or greed, for its continuance means that the people of the State—so long as it does continue—will have 10,650,000 pounds of some of the other products of their soil and labor to export and which they would be compelled to consume as food were it not for these birds.

We then have before us the problem of maintaining this food supply for years to come for the benefits and uses of the whole people of this and future generations. This can only be done by restricting the killing to such numbers as those that are left can reproduce in the following season. By such means, and such only, can the supply be continued. The preservation of a natural resource that is worth annually to the State over a million dollars is a subject worthy of the earnest consideration of every good citizen. We have been careless and indifferent too long. We have lost much which we cannot retrieve, but we have much left which we can preserve by intelligent thought and action.

PROTECTION WHICH PROTECTS.

If all manufacturers and dealers were to follow the enterprising lead of the celebrated Browning Brothers Co. of Ogden, Utah, the great problem of game protection would be resolved into simplicity itself. It is with great pleasure that we reproduce here a copy of a letter recently sent by Browning Brothers to Mr. O. A. Slade of Lehi, Utah, the text of which expounds the best doctrinal sermon on game protection that we have ever heard preached. The heartiest congratulations of American sportsmen are due Messrs. Browning, and we hasten to accord ours:

OGDEN, UTAH, December 2, 1903.

O. A. SLADE, ESQ., Lehi, Utah—Dear Sir: We are just in receipt of the transcript of the trial and conviction of James Batsen for blowing up fish with giant powder, and are pleased to inclose herewith our check for $50, the reward we offer for any person convicted for blowing up fish with giant powder.

We believe in protecting our fish and game, and when people violate our fish and game laws they should be prosecuted. It is a pleasure for us to give you this reward, and trust the conviction of Batsen may be a warning to others. We are yours very truly,

BROWNING BROS. CO.

HOW TO KNOW OUR VENOMOUS SNAKES.

By Dr. R. W. Shufeldt.

PART II.

I SHALL now give a list of the species of Harlequin or Bead snakes belonging to our fauna, and also indicate the species that resemble them in the matter of their coloration..

Professor Cope in his invaluable work on the crocidilians, lizards and snakes recognizes three species of *Elaps;* these are as follows:

1. The common Harlequin snake (*Elaps fulvius*). "Ranges from North Carolina (exclusive) to the Tierra Templada of the State of Vera Cruz, Mexico." Length from 22 to 28½ inches. Transverse bands of black and red, with intermediate yellow ones.

2. Meek's Bead snake (*Elaps distans*). Florida,. A slender form with very narrow black rings, separated with wide intervals. "No light rings separating the red and black ones."

3. The Sonora Coral snake (*Elaps euhryxanthus*). Sonora region, Mexico, Arizona, Lower California. A very distinct species. Small head, which is entirely black as far as the angles of the mouth. According to Cope "Body banded alternately with black and light red, separated by narrow rings of creamy white, all the bands immaculate. First broad ring behind the occiput red instead of black as in the other species."

These snakes are also called in Florida "Candy stick," "American cobra," and the "Garter snake." They are gentle snakes, not easily provoked to biting, and all the more dangerous on that account. It is said that their bite is quite as venomous as that of a rattler or a moccasin. Dr. Einar Lœnnberg reports several deaths of persons in Florida following an *Elaps* bite. He has written interestingly on this subject.

It is in the genus *Lampropeltis*, or the "King snakes," where we find the best color imitators of the Elapidine species, though it is not altogether confined to them, as the Osceola snake (*Osceola elapsoidea*), as well as "Le Conte's snake" (*Rhinocheilus leconti*), and the "Scarlet snake" (*Cemophora coccine*), all possess a color pattern more or less like to one assumed by the coral snakes. But I have already stated above a distinct difference in this particular by means of which the representatives of the venomous and those of the harmless genera may be readily distinguished.

We now come to the last group to be noticed in the present article, and I must pass to their consideration at once, for the species are numerous and a knowledge of them important, and the temptation to describe the remarkable venomous snakes of many other parts of the world is very great. Space here, however, will not admit of this, and I am compelled thereby to restrict myself to the ophifauna of the United States.

The snakes now to be noticed all belong to the family *Crotalidæ*, commonly known in the books as the "Pit Vipers." This last name they have received in view of the fact that each and every representative of the family presents upon either side of the face a deep and well-circumscribed pit. It

is found somewhat below the eye and nostril and midway between them. The *Crotalidæ* are the only snakes that possess this character, and if one meets with a snake in any part of the world having a deep little pit between its eyes and snout it may at once be recognized as a highly dangerous snake, and if a big one its bite probably fatal. Naturalists have largely speculated upon the origin and uses or the function of these peculiar pits, but up to the present writing beyond their morphology nothing is known upon these points. It offers an admirable field for investigation on the part of our anatomists. I cannot so much as refer to all that has been published on this subject for many years past.

With us the *Crotalidæ* include the deadly rattlesnakes, the moccasins and the copperheads, and in addition to the "boreal pits" just referred to they all possess another character by which they may at once be known as venomous reptiles. I refer of course to their fangs, found upon either side of the upper jaw in any one of the species. These differ very markedly from the fangs in *Elaps*, for instead of being permanently erect they are movable, much larger and more curved. To be sure in both these kinds of snakes the fangs are set in the maxillary bones of the upper jaw, but in the coral snakes these bones are immovable upon the others, while in all the crotaline types the maxillanes are movable and readily admit of the fangs being folded backward on the palate or roof of the mouth. This mechanism has been described by a great many naturalists, anatomists and others. But an intelligent description of it occupies many printed pages octavo and numbers of figures to make it clear to the lay reader. It would be quite out of place in the present article, for I am not dealing with the structure of our venomous snakes, but rather how to know them, and any one who knows anything at all about them recognizes a rattler or a moccasin when he sees it. So when I say that one of them has large, curved and movable fangs in the upper jaw and a pit in the face beyond the eye, that is almost enough. To a quick, observing person that would be quite enough, and such a one would naturally next ask: "How many crotaline species do we have in this country, and how can one tell them apart?" That is just what I am coming to in a moment, but before doing so it will be as well to briefly note a few more of the striking characters of these highly venomous reptiles of ours. From what I have already said in the foregoing paragraphs it will be easily appreciated that if we took three perfect heads of adult specimens of a common and thoroughly harmless snake, one of an *Elaps* and one of a rattlesnake and made a dental impression in soft wax of the teeth of the upper jaw and palate, when the functional and reserve fangs of the rattler were erect, the patterns we would get would be very different. In the common snake we would simply see the curved and parallel rows of tooth punctures, the latter being at regular distances apart, and the impressions all of nearly the same size; in the *Elaps* we would get the single fang puncture upon either side, as well as the impressions made by the teeth of the palate; finally, in the rattlesnake we would not only have the palatal and jaw teeth but the anterior ones of the latter would be made by the fangs—a big functional one anteriorly and to the outer side, followed by the punctures of the reserve fangs, each gradually increasing in size to the last one, the row showing a slight curvature with its convexity facing outward. In certain cases the knowledge of this might come in with advantage in diagnosis, especially in the case of an *Elaps* and a common snake.

Our pit vipers of the rattlesnake group possess still another character that distinguishes them not only from all other venomous snakes, but from snakes as a whole, both harmless and poisonous ones the world over. In other words, the organ, the so-called rattle is quite unique with the rattlers. This rattle has been described in many works, and its uses, form and appearance is so well known by every one at all interested in or likely to be interested in snakes that there is no need of either figuring or describing it here.

The moccasins and the copperheads possess no rattle at the extremity of the tail, but in the case of the latter reptile at least the extreme point of the tail is finished off with a cap of no great size. It is not likely that this would be noticed by the non-expert observer on a snake in a state of freedom. The "lovial pit" beyond the eye might be sooner noticed. In so far as the water moc-

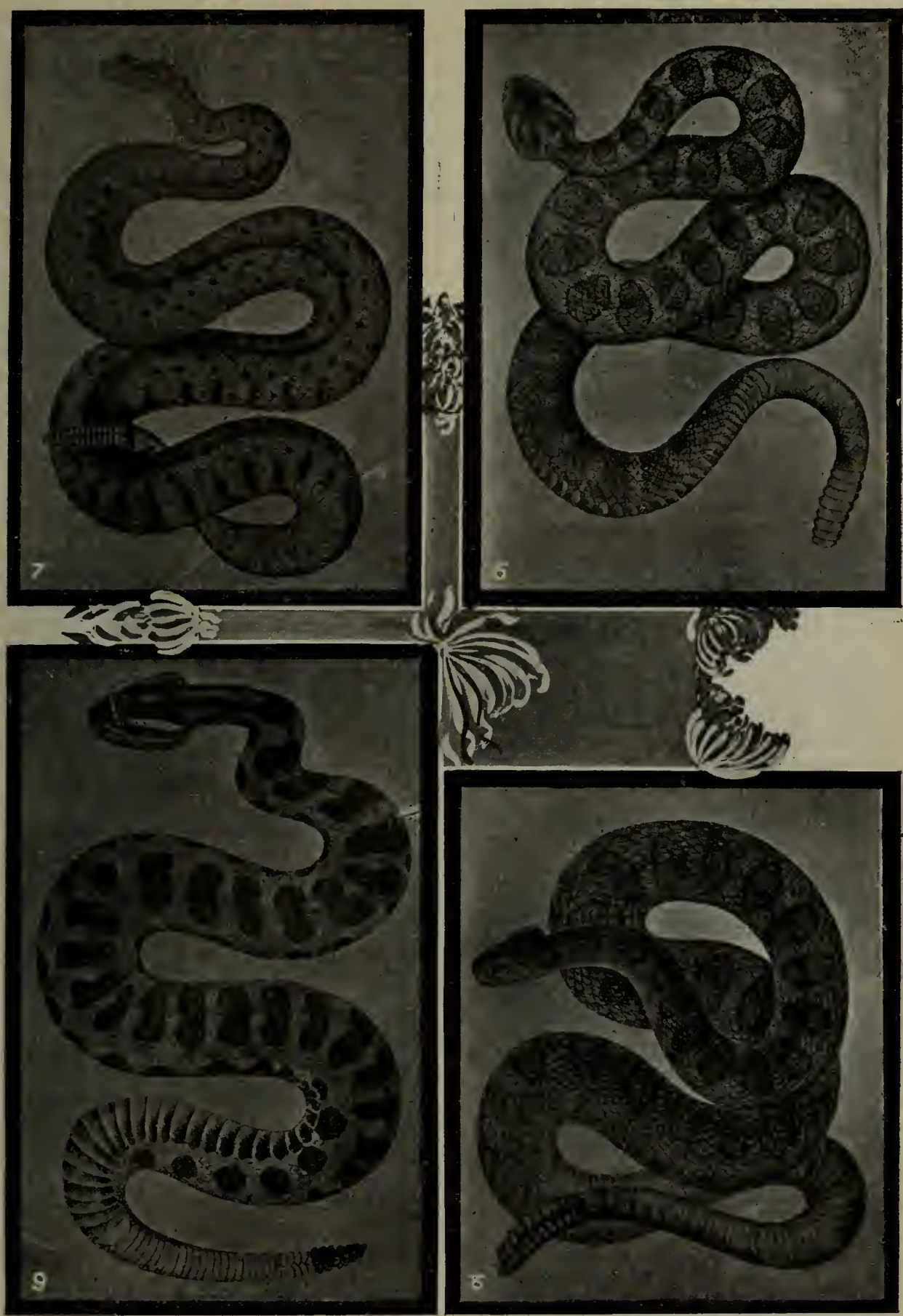


Fig. 6. PACIFIC RATTLESNAKE (*Crotalus lucifer*). From Baird's Pacific Railroad Report.
Fig. 7. HORNED RATTLESNAKE (*Crotalus cerastes*). From Baird's Report Mex. Boundary Survey.
Fig. 8. PRAIRIE RATTLESNAKE (*Crotalus confluentus*). From Baird's Pacific Railroad Report.
Fig. 9. "MASSASAUGA" (*Sistrurus catenatus*). After Holbrook.

Fig. 5. COPPERHEAD (*Ancistrodon contortrix*). From a cast in United States National Museum.

casin is concerned there is still another character to distinguish it from the common water snake as well as from that much dreaded though perfectly harmless species the puff adder, or hog-nose snake (*Heterodon*). This character is to be found in the arrangement of the scales on the under side of the tail, the tail of a snake being that part of the reptile extending from the vent to the distal extremity of the body. Now these scales in a water moccasin on its under side are for the most part undivided in the middle line, though some of them are, especially the terminal ones. In the water snake, however, and in the hog-nose adder they are all thus divided, or rather are arranged in pairs, from vent to tip, in such a way as to make it appear as though single scales had been divided on the entire under side of the tail by a median, longitudinal zigzag line.

Now the points I have enumerated here are ample as characters to distinguish any of our true venomous and really dangerous snakes from the common species that imitate them. An expert can identify them in nature in a moment if he gets a good view of the specimen. There are others only slightly familiar with snakes who are obliged to have the specimens in hand and have sufficient time to recall to mind the distinguishing characters of a venomous species; still others need not only this opportunity but a text-book on the subject before them, besides finally as we pass down the line we meet with that great host of lay people upon the minds of whom neither time nor text-books nor tuition can make the faintest impression. To them all snakes are alike, all are to be suspected, the majority of them are deadly; all of them can "charm" birds and chipmunks, and perform any number of other occult tricks, and the unanimous verdict of this latter class is to kill every snake that one meets with in a state of freedom, irrespective of color or other characters and characteristics. Any attempt to instruct such people is altogether futile, and the only thing for them to do is to keep out of the woods and off the prairies where snakes abound. Any number of good drawings, and no end of lucid chapters on identification can ever serve them the least bit. They live beyond the pale of argument and belong to the army of the great impossible.

Confining ourselves strictly to the *Crotalidæ* of the United States, and ignoring those found south of the Mexican boundary line, we meet with one genus of moccasins and two genera of rattlesnakes—the first containing two species and the latter—taken together species and subspecies — equal twenty-three at the present writing so far as I am familiar with them. Others may have been described within the last year or two that have not been brought to my notice.

The following list I have drawn up to acquaint the reader with the number of these snakes:

UNITED STATES CROTALIDAE.

Three genera, namely: 1. *Ancistrodon* (water moccasin, copperhead). 2. *Sistrurus* (the ground rattlesnakes). 3. *Crotalus* (the true rattlesnakes).

Ancistrodon.

1. *Ancistrodon piscivorus.* The water moccasin. (See initial cut to Part II.). 2. *A. contortrix.* The copperhead. (See fig. 5.)

Sistrurus.

1. *Sistrurus miliarius.* The ground rattlesnake. (See fig. 2.) 2. *S. catenatus.* The Massasauga. (See fig. 9.) 3. *S. c. edwardsii.* Edward's Massasauga. 4. *S. c. catenatus*

Crotalus.

1. *Crotalus molossus.* The dog-faced rattlesnake. 2. *C. adamanteus.* The diamond

rattlesnake. (See figs. 3 and 4. 3. *C. a. scutulatus.* The Arizona rattlesnake. 4. *C. a. adamanteus.* The Florida diamond rattlesnake. 5. *C. a. atrox.* The Texas rattlesnake. 6. C. *ruber.* The red rattlesnake. 7. *C. confluentus.* The prairie rattlesnake. (See fig. 8.) 8. *C. c. confluentus.* 9. *C. c. pulverulentus.* 10. *C. c. lecontei.* Le Conte's rattlesnake. 11. *C. c. lucifer.* The Pacific rattlesnake. (See fig. 6.) *C. tigris.* The tiger rattlesnake. 13. *C. pricei.* Price's rattlesnake. 14. *C. horridus.* The banded rattlesnake. 15. *C. enyo.* Xantus's rattlesnake. 16. *C. lepidus.* The green rattlesnake. 17. *C. mitchellii.* The white rattlesnake. 18. *C. cerastes.* The horned rattlesnake. (See fig. 7.)

To present separate descriptions of all these species and subspecies of rattlesnakes, and to give anything of their habits and geographical distribution would obviously carry me far beyond the limits of the present article. Indeed it would require a series of articles to properly present the life histories of our venomous snakes, and give such illustrations as would render their identification more or less certain for those not especially familiar with the various kinds. Possibly upon some future occasion I may be permitted to do this, and certainly the subject is well worthy of such treatment if for no other purpose than to render the knowledge of our venomous snakes far more general than it is at the present time.

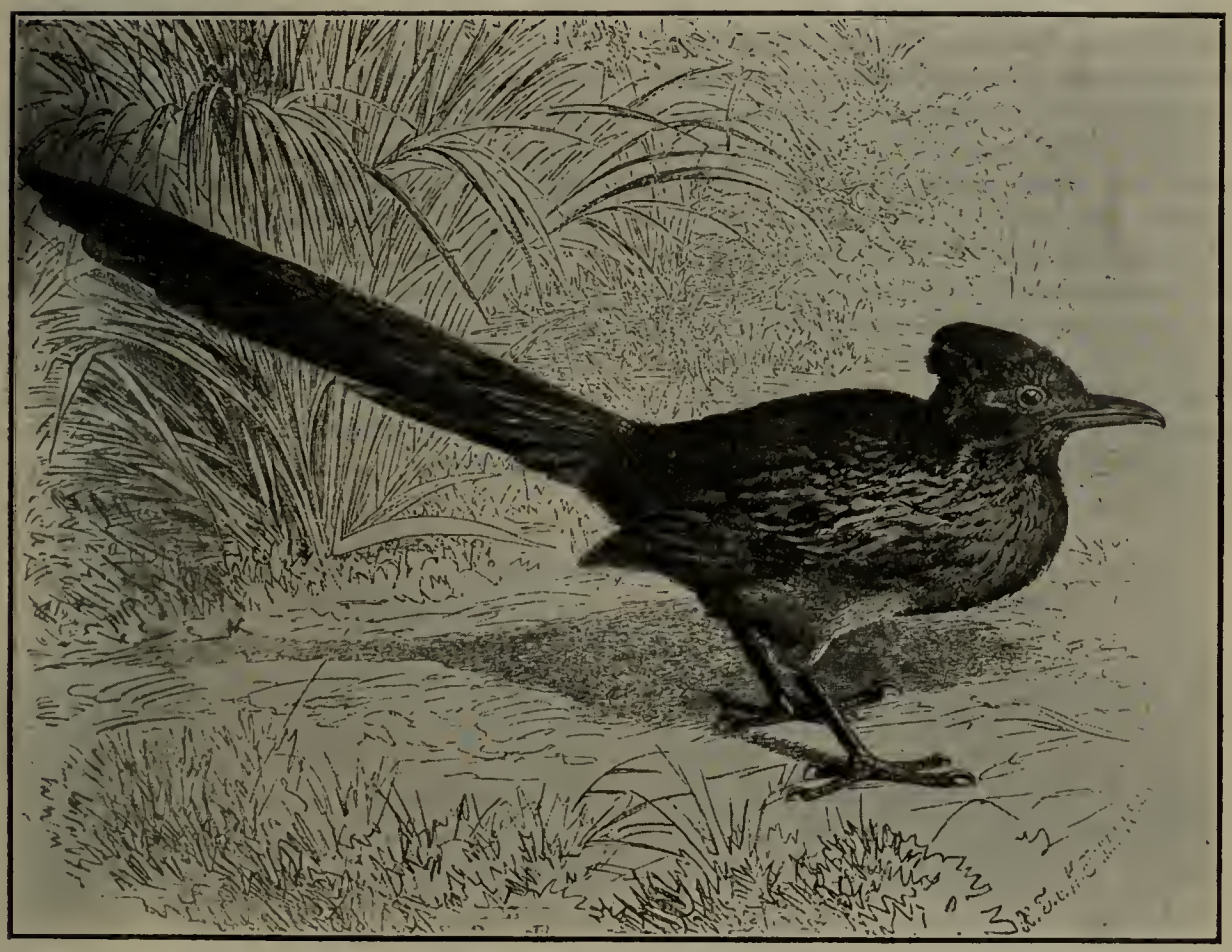


Photo by Dr. Shufeldt.

THE CHAPARRAL COCK—ACCORDING TO WESTERN TRADITIONS AN INVETERATE FOE OF RATTLESNAKES.

CLOUDSLEY RUTTER.

IT IS with feelings of the most poignant regret that we announce the demise of Cloudsley Rutter, well and favorably known to our readers and to the whole scientific world as one of the brightest and most promising naturalist-writers in this country. His death occurred November 30, while on a visit to his mother who was hopelessly ill at Oakland City, Indiana, and was caused by the shock resulting from her death, combined with a severe attack of erysipelas.

Professor Rutter was born in Gibson County, Ind., in 1867. After attending the public schools he graduated in 1887 from the State Normal School at Terra Haute, where he was a pupil of Dr. Barton W. Evermann, now chief of the Division of Scientific inquiry, U. S. Fish Commission, and one of the foremost ichthyologists of the age. Subsequently, he graduated from Doane College, Ind., coming thence to Stanford University, where he took the course in zoology. On his graduation from Stanford, Dr. Evermann secured his appointment as Assistant on the U. S. Fish Commission. For five years he devoted himself to the study of the life habits of the Sacramento salmon, and last year was appointed one of the Commission on the Alaska Salmon Investigation. At the time of his death he held the position of Naturalist on the U. S. Fish Commission steamer "Albatross."

Professor Rutter's study and investigation of hatchery methods has very materially advanced the artificial propogation of fish. He discovered a method whereby a large percentage of the eggs previously lost by reason of being mixed with blood when stripped from the females, thus preventing fertilization, could be successfully cleansed in a salt solution and subsequently hatched. During the last year Mr. Rutter has devoted considerable time to the photography of living specimens of fish, succeeding in obtaining a series of photographs illustrating the life of the salmon from egg to maturity and death. Our readers have been favored with an abbreviated reproduction of this series, which has since been published in full in the *Bulletin* of the U. S. Fish Commission. His investigations, by United States authority, of the sea-lion controversy, some three years ago, has also been published in WESTERN FIELD. Mr. Rutter has during the last two years written for various magazines, etc., giving the results of his work and investigations in popular form, his articles eliciting only the most favorable comments, as his work was broad and comprehensive yet of wonderful exactness in detail and pleasing in its relation. Personally, Cloudsley Rutter was a broad-minded, clean and pure man, noble in his acts and aims. Ambitious and enthusiastic, ever keeping the highest ideals in view, he was a lovable, companionable gentleman in whose loss society as well as science shares.

ARTHUR CORBIN GOULD.

IN THE death of Arthur Corbin Gould, founder and editor of *Shooting and Fishing*, which occurred in New York, December 15, from heart disease, the whole American fraternity of sportsmen, and the rifle shooting guild in particular, suffers a great and lasting loss.

Mr. Gould was easily the foremost exponent of rifle shooting in America, and to his incessant labors and application in the development of our national weapon this country is largely indebted. His suggestions and experiments led manufacturers into better and broader paths of research, and the perfection of American rifles and ammunition is due to him in no small degree.

Arthur Gould was an earnest, frank and kindly man, true to his ideals and serious in his work. He was a sportsman in the best sense of the word, and a typical American in all things. He published a number of works on rifle and pistol which have been regarded as authority on these topics.

Conducted by A. T. NOE, M. D.

HAVE received a number of inquiries with regard to the skin, and as I have several times referred to the wonderful functions of that valuable part of our physiological being, I shall devote this article to the skin, its uses, abuses and care.

Most of us are familiar with the skin as it it is the only part of our own body which we can see and examine. Therefore, I shall ask my readers to verify my remarks for themselves, and by so doing the value of this wonderful organ will be more easily understood and appreciated.

Physiology teaches us that the skin has several functions. Being composed of various layers each with its own duty to perform, it is most important that we should understand how much we owe to the healthy condition of our outer covering.

The skin consists of a vascular tissue called derma and a top sheath or covering called the epidermis or cuticle. In the derma and beneath it are imbedded the glands of the skin and the follicles or roots of the hair. The hair and nails are part of the epidermis, modified.

The cuticle, or upper skin, is composed of several strata or layers of cells which vary in thickness in different parts of the body. On the palms of the hands and soles of the feet they are quite heavy. The deepest cells of the epidermis are those next the derma or *cutis vera*, and are thick and evenly distributed over the body. These cells contain the pigment which gives color to the skin. Some parts of this layer is always reforming and part throwing off, thus keeping the average thickness of the skin always the same in all parts of the body, very thick in the parts where there is much use or friction and less thick in others. The constant wear and tear does not thin the skin, for the constant production in the deeper cells repairs the waste on the outer surface. The function of the outer skin is to protect the delicate cells of the derma and to give free access of air, and this upper layer also contains millions of little pores that control the heat supply of the body and contract or expand as the temperature is raised or lowered. Now, as the temperature of the body means much to the healthy condition of that body, it will be readily seen why I have made such a point of this wonderful protection, our skin. Too much cold means sickness, so does too much heat, but the moment we are exposed to sudden change of heat or cold the skin shuts up tight or fully expands to accommodate the new condition. Therefore, it behooves us to keep the skin free, active and ready to perform all its functions.

When we know that one per cent of the poisons of the body are exuded through the skin and that the perspiration is full of acid waste, we can more fully comprehend the great necessity of keeping the outer skin not only clean but scrupulously clean. All waste must be entirely removed if we are to be able to rely on the skin to keep the blood at its proper temperature.

The skin secretes as well as excretes, and this brings us to the second part, or inner layer of the skin, the derma or corium. This part of the skin contains the oil or sebaceous glands, the sudoriferous or sweat glands.

The sebaceous or oil glands are to be found in most parts of the body, especially the parts where there is much hair, on the face and in all entrances of the body as the nose, lips, ears, etc. They must be kept active and not allowed to become clogged by dirt or dead matter, but by friction and cleanliness kept open and ready to supply the necessary oil for the healthy condition of the skin.

The sudoriferous or sweat glands pass up through the cuticle and open and close by a small valve-like arrangement in the outer skin. They are to be found all over the body, but especially under the arms, in the palms of the hands and the soles of the feet. They are most important from a health standpoint, and this brings us to the pith of my article: the care of the skin.

The skin breathes and does much toward supplying the body with oxygen, therefore it must have air. Every human being should allow the fresh, cool air to touch every part of his body for at least five minutes a day, and from thirty to sixty minutes a day is the best tonic you can take. Take off every bit of clothing and briskly rub yourself all over with a dry, rough towel and you will be surprised at the pleasant sensation and glowing exhilaration you will experience. Don't be afraid of taking cold. Fresh air doesn't give you cold; it is the inactive, clogged skin refusing to protect you that gives you cold.

The more air you give your skin the less liable you will be to blood disorders. When you enable the blood to rid itself of the carbonic acid poison which it excretes. you purify your blood and keep your system free from contagion. The skin excretes or gives off large amounts of poisonous substances ever in twenty-four hours, and if these are not removed they remain on the skin oftentimes until they are re-absorbed into the body. This is dangerous, indeed, and many blood diseases, cancer, boils and like disorders have their origin in a poisoned blood caused from an unclean skin.

Many people say, "Oh, I take a bath every week," and think they are doing all that they need to do in the matter of keeping the body clean. This is a mistake; as I said before, the skin must be allowed to breathe and the circulation well kept up by friction. A simple washing with warm water does not remove dead cells and stimulate new ones. You must scrub yourself and stir up and remove all waste matter. It is not necessary to get into a tub to do this; a good brush, a little fresh water and a big, rough towel are all you need to keep your skin ready for work.

Now as to underwear. It is shocking to see the gross negligence of people on this subject. They buy thick, heavy wool underwear, put it on Monday and wear it night and day for a week. They feel this will keep them warm, and then wonder why they take cold when they are so warmly (?) dressed. When you think that the skin is supposed to be all the protection we need, and if Nature intended us to wear wool she would have supplied us with it, it seems to be very foolish to think we can improve her methods.

When the skin does not get air it becomes weak, flabby, useless, and when you load a weight of non-porous, non-absorbent clothes upon it you can see for yourself the condition the skin must be in. If it is necessary for the cuticle to get rid of its excretions and to have plenty of air, then wool must never be put next the skin, for wool does not absorb readily and does not allow the slightest particle of air to penetrate its closely woven substance.

Clothes do not keep you warm. The body generates its own heat and warms itself. People who wear the thickest clothes are the ones who feel the cold the most and who are most subject to rheumatism, gout and kidney troubles. The man who wears a heavy fur overcoat is the first one to shiver. Why? Because his moist, lax skin, weak from long suppression, refuses to contract and the wind chills him through and through if it happens to strike him, giving him a cold. Sailors, who habitually expose their chests to the air, seldom have throat troubles and are a hardy class of men.

I advise the use of open-mesh linen for underwear for reasons easily understood. Linen is the greatest absorbent fabric, and will keep the skin dry and free from its excretions. Woven with meshes open it allows the free ingress of air and keeps a vestibule of body-warmed atmosphere always around us. No sudden shocks of heat or cold can be experienced with linen-mesh underwear. Now, if the point of health is to keep the skin free from the poisonous moisture it exudes, and to give it plenty of air as well, then you will agree that the best possible covering we can use is one that does these things, and open linen is the only one I have found dependable in long years of investigation on this point. Open cotton is next best, but don't expect a good, healthy skin if you wear wool.

A word to the ladies: You wonder why

your skins are sallow, blotched or pale, and resort to cosmetics, paint, powder, etc., to imitate the beauty of Nature for which you long. You seek to cover up the mischief of poor skins by imitation—but deceive no one. And yet a beautiful, radiant complexion is within the reach of all.

I will admit that it will take a little effort —but so it does to get the cosmetics on right so that they don't show. Don't frown, dear ladies; you know it is true that it takes hours to perform your toilet through the day. Well, if you will devote a half hour to air and friction baths and allow your skin half a chance I am sure you will be astonished how soon you can discard your imitations of Nature. For when the blood bounds through the body, refreshed by the air from the skin and lungs, Nature will tint your cheeks, brighten your eyes, give lightness to your step. Your soft, glowing, healthy skin will be the envy of your sisters, and you will be glad to throw away paint and powder.

Nothing is so beautiful as a fine, clear skin, radiant with health. Do not smother yourself in thick, heavy clothes, but wear light ones. Exercise and keep your blood moving, this will keep you warm. Keep the skin dry and clean—very clean—then Nature in time will rebuild your complexion till it is all you desire. Of course keeping the skin dry and clean will not alone give you a fine complexion; for, as I have said in former articles, too much rich food will damage the skin, but all things being equal the foregoing advice ought to give a good, healthy cuticle.

Do not wear at night any of the clothes you have worn through the day. This is a common but filthy habit, as the body throws off so much during the day the underclothing must be filled with carbonic acid gas. This is a deadly poison, and left on the skin (especially during sleep) is a very dangerous proceeding. I never could understand how otherwise decent people could stand to sleep in sweaty or soiled underclothes. If you feel that you must wear underclothes at night, then change from those you have worn during the day; but it is better not to wear underclothes at night, the bed covers and a nightgown being sufficient.

Exercise plays a very important part in

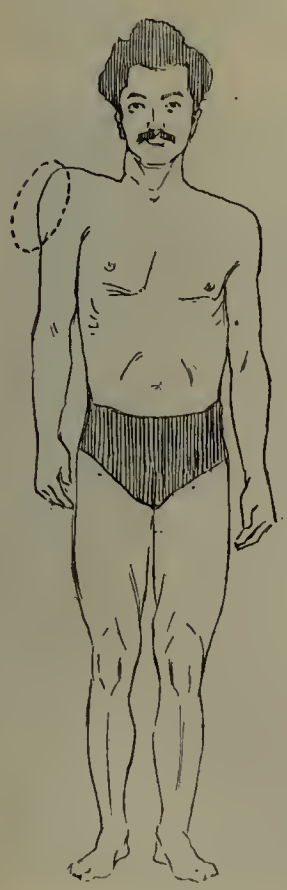


Fig 32

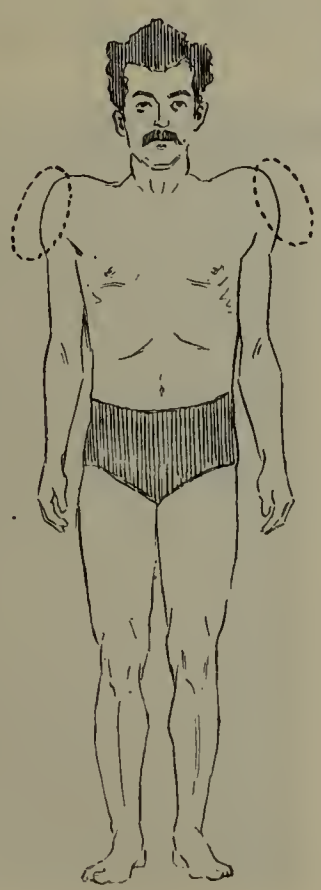


Fig. 33.

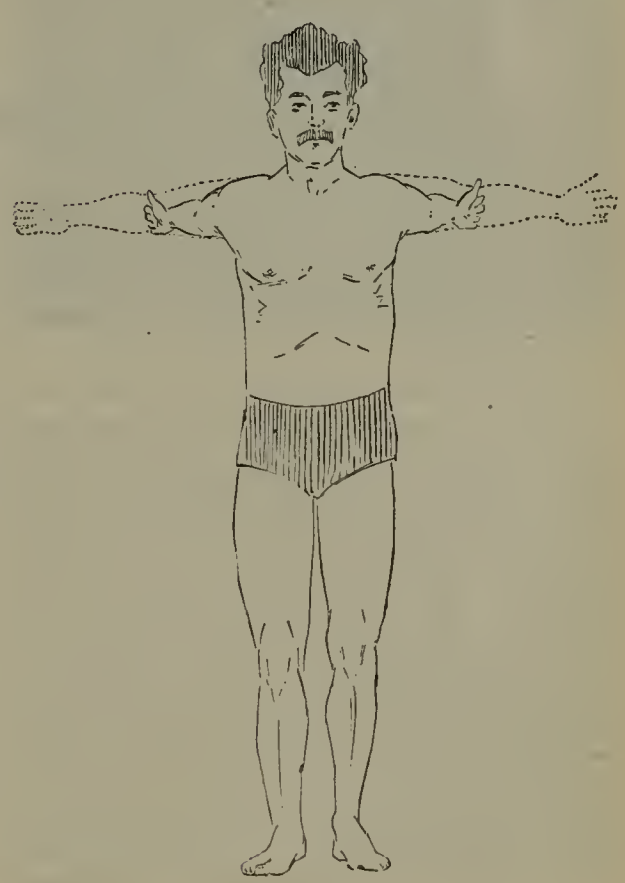


Fig. 34.

keeping our outer covering right. For the skin is full of blood and its tissues require activity to keep them healthy. All the physical work I have given in these pages will help you to gain an active skin, which will protect you and do its share toward your general health.

Deep breathing is also a good complexion beautifier, for the lungs and skin have one function in common — that of supplying oxygen to the body. So when you breathe long, full, deep breaths of fresh, cool air you help the skin just that much toward its beauty and strength.

The exercises this month will be fine for the skin, as they will develop its protective qualities by increasing the lung protection.

You have now reached a time in your development when you can realize more thoroughly the gain you have made. You can feel more truly that you are able to control your body as you will. This part of the course will teach you to use the upper back and spine. In this portion of the body are the powerful back and shoulder muscles that we use in lifting, and their obedience means much in case of need.

EXERCISE FOR UPPER BACK AND SPINE.

(*a*) Stand poised, arms at sides, as in figure 32. Raise right shoulder forward, up and back as far as possible, as if lifting a heavy weight. Repeat ten times. Reverse. Repeat with left shoulder ten times. Relax.

(*b*) Stand poised, extend arms at sides, palms forward as in figure 33. Now keep arms rigid and rotate shoulders from front to back, and return to position. Repeat ten times, then reverse from back to front. Relax.

(*c*) Stand poised, extend arms at right angles, palms forward. Then push arms backward till backs of hands meet as near as possible, as in figure 34, then return to position. Repeat with palms of hands backward. Take each movement five times.

In gaining the absolute obedienec of this part of your body you will find a large amount of strength developed. The increased circulation of itself is a gain, while in the ability to use your shoulders and back at will you are surely in possession of a great force. Remember to keep poised and erect.

SPORT AND SPORTSMEN IN THE SOUTH.

Editor Western Field: It is a pity that, among the large number of sportsmen of Southern California, that some of them do not furnish the Western Field with a sketch of their outings. Did you know that we have the finest quail shooting to be found in the State, and some excellent duck shooting?

The writer has just returned from a three weeks' outing with the well known and true sportsman, Peter Lux, at his home in Encinitas, San Diego County. I never saw so many quail as there are there, and in my thirty-five years' shooting in California I never enjoyed myself as I did on this trip. The only drawback was the short time we had afield, as one would get the limit in from one to two hours' shooting. I pity any sportsman that has not had the pelasure of shooting with Peter Lux. He knows where every covey is within ten miles of his home, has a welcome for all true sportsmen that visit him, has a fine team and can put you at work on a covey in a short drive, and if you are a little slow getting on he will see that you do not retire without a good bag. Then, again, if you want your eye wiped just walk a few yards with Pete—when you see his gun go up you will see a quail go to grass. The last day's shooting we had we left his home at 10:30 a. m., drove one and a half miles, and at eleven o'clock we flushed a big covey. They settled on a mesa covered with low brush and dry grass; we were soon among them. Lux was shooting over Duke, a staunch old pointer, and the writer over Count Redfield H., a seven and a half months Llewellyn setter, bred by C. A. Howard, Bowling Green, Ohio, and it was point, flush and retrieve. At just 11:50 we were at the wagon with twenty-five quail each.

HAUERWAAS, LUX, HOLBROOK AND WINSTAL.

Los Angeles is the home of a large number of sportsmen, and several of them do their quail shooting at Encinitis. They are a jolly set and always carry their red paint and brushes with them when they visit Peter Lux. Among them are John Hauerwaas, "the king of good fellows," Joe Singer ("wooden shoes")—everybody knows Joe, his heart is a large one and lays on the left side. Joe loves to burn powder and at the round-up will never fail to show up his one bird. Fred Holbrook ("Hiedenriech"), who loves to shoot as well as he did sixty years ago—Fred is no spring chicken, but for baggin quail and pulling corks he has no equal. Harry Hyatt, the very modest partner of Joe Singer, and doctor or quailology, can tell you just why he missed that last bird and bet you an even twenty that he kills the next double. Gus Winstel is another of these double-breasted good fellows, and it is a cold day when he fails to show the limit. Jacob Adloff and August Marquis make a strong team, and when it comes to lunch time they

LUNCHEON AT ENCINITAS.

HAUERWAAS, MARQUIS AND STODDARD.

will be found in the shade with a schooner. Now comes Criss Krimple, "owner of San Pedro." Criss never was known to make a clean miss—if the bird don't go to grass you will see a feather bed in the air. Now, who doesn't know Johnny Cline, our handsome Collector of Port, "Little Sure Shot." If you have got the legs and the wind to follow Cline you will see some royal sport. A match between Lux and Cline on quail would be a treat to sportsmen; while Cline might bag the largest number of birds, Lux would snow him under if they counted shells. George Black and General C. A. Last are among the

gentlemen who make Encinitas their shooting grounds. Several of these gentlemen, with Peter Lux, have bought the Encinitas grant, one of the best quail grounds in the South. It has several fine springs of cold water, many hundreds of acres of open ground covered with low brush, which affords the finest of shooting. They will fence the grant and build a fine clubhouse among the many live-oak trees, and then the boys will enjoy life and see who can tell the biggest fish story.

C. A. LOUD.

THE SANTIAGO HUNTING CLUB OF ORANGE COUNTY.

The Santiago Hunting Club was regularly organized in 1902, but it is the outgrowth of a small beginning nine years previously, when Messre. C. E. Parker, William H. Bowers and two or three other residents of Santa Ana took occasional trips up Santiago Cañon to the home of Mr. J. E. Pleasants, who joined them in the chase of the gray fox and wild cat. Many a moonlight night, when the scent was hot, a small band of tired but enthusiastic sportsmen might be seen following the dogs until the small hours of the morning, much of the time on foot on account of the roughness of the country.

THE BARBECUE.

The pack at first consisted of hounds borrowed from various sources, but this was not always satisfactory, and the desire soon grew to gather together a pack which would be ready when wanted and composed of as good dogs as could be obtained. A kennel was started in October, '93, with Rowdy and Leah. Both were of the old Southern stock. Rowdy was a native son of the Golden West, but was bred in Alabama, sired by Moro, dam Mollie, both of which were sent here by Travis Bros. in 1887 from Alabama. Rowdy was rather a medium sized dog, of excellent form, voice and nose, and with great endurance, all of which important points it has been the clug's aim to perpetuate.

Rowdy's sons Pluto and Flash, and his daughters Diana and Trilby, are still in the kennel, the last two being the dams of eight of the ten younger members of the pack. Pluto is the son of Leah and Flash; Diana and Trilby are from Reina. The latter was bred in Arkansas and was by Beaver, a high-class dog well known in that State. Her dam, Dollie, was brought by Dr. Dial from Arkansas to Orange, which was Reina's birthplace. The three oldest of the young dogs, Ben, Trigger and Nick, are all sons of Mack, a powerful black-and-tan hound, son of Gaine's Pete, from Bixby's Amazon, both of Southern blood, the latter a relative of Rowdy's. Three better hounds than these have seldom followed a track. Pilot, Rover, Flora, Punch and Judy are all by Dow, who was a remarkably bloodlike dog, of English blood on both sides. These last five are less than a year old, but on one occasion stayed out for forty hours, and often will not leave the trail or a treed animal for twenty-four hours if the pack is hunting on its own account.

Queen and Neely are of Kentucky stock, and the only animals in the kennel not descended from Rowdy on one side or the other. Both are young, Neely being only a few months old.

The pack is kept at the home of Mr. J. E. Pleasants in the hills twenty miles east of Santa Ana, a particularly favorable place because there are no near neighbors to be troubled and game is so plentiful that the hounds keep themselves in condition. The regular hunt meetings of the club are held in

NOTED DOGS OF THE SANTIAGO HUNTING CLUB.

1. TRILBY. 2. PLUTO. 3. DIANA.
4. DOW. 5. MACK. 6. FLASH.

THE START.

May and October, when the pack is brought down to Orange County Park, ten miles from Santa Ana, and is met by the members and their friends. An old-time Spanish barbecue is ready at sunset, tents are pitched for the night, and a start with the hounds and horses is made before sunrise, returning for the hunt breakfast at about 11 a. m.

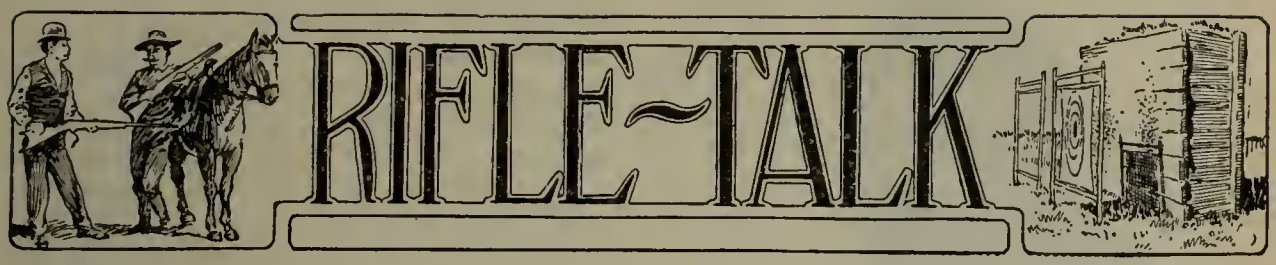
In an article in the Los Angeles *Times* of November 22, it was stated that few packs of hounds could catch the California gray fox. The Santiago pack does not allow one fox in a dozen to escape if started in fair ground, and for several years past their catches have averaged twenty wild cats and fifteen foxes annually. Five foxes have been kiled in the last two months, in the dryest weather of the year. This October, the pack started a fox at 7:30 a. m., had it in four different trees and finally caught it at 10:30 a. m., some three hundred yards from the hunters, to whom Pluto proudly caried the victim in his mouth.

A dissertation on fox hounds may not be in order, but in the opinion of the members of the Santiago Hunting Club, the hound of the old Southern stock is preferable to the Kentucky dog on account of having a more musical, bell-like voice, finer coat and form, and being better adapted to work with others as a pack. The Kentucky dog probably has as good a nose, but is too fast, and individuals are likely to over-run the pack or work indifferently.

The officers of the club are C. E. Parker, president; N. N. Brown, secretary; Thomas McKeever, vice-president; R. F. Chilton, treasurer, and J. E. Pleasants, master of the hounds.

CHARLES A. RIGGS.

SANTA ANA, CAL.



PRACTICAL RIFLE SHOOTING.

By D. W. King, Jr.

TO BEGIN at the beginning, I wish to disagree with those authorities on rifle shooting who make the claim that rifle shots are not born, but made—I claim the reverse. Of course it is possible, and is frequently the case, for one who has not any natural inclination for the sport to become a good rifle shot. Any man who has a reasonably good nerve and eye, combined with good judgment, may by a careful and conscientious practice become what would be called a first-class shot.

A great deal depends upon the way one gets started at first practice, especially if he has not a natural instinct for the game. Many people have started in by shooting a large gun with a heavy recoil and have, consequently, been made so "gun shy" that they never got over it, whereas if they had started in with a small caliber, and learned how to hold and pull without flinching, they would have developed into good marksmen. A natural born shot will not pay so much attention to the size and recoil of the gun at the start, as every new gun or load he tries simply gives him an appetite for more.

Of course, there are a great many "natural born shots" who do not develop into even good shots, but that is always traceable to some definite cause, such as some physical debility of the eyes, muscles or nerves, and oftentimes to the excessive use of tobacco or liquor. Now, I will hear you say that the best shot you ever saw used both tobacco and liquor all his life. I will admit that this is generally the rule—most good shots of my acquaintance do, I know. Perfect physical condition, however, will go a long ways when it comes to a match or a long string of shots where the strain on a man's nerves will tell.

I have known of many cases where a man was practically a champion in his class or club in practice, but who would "fall down" badly whenever it came to a match or a test where nerve counted. There have been many phenomenal scores made by people who were badly under the influence of liquor. But for good, steady shooting, day after day, and in the times when you need every point that can be made, give me the man that does not indulge.

In my own case, which may be a good example and one which I naturally know more about than any other, I certainly consider it was born in me as my father was considered the champion of New Hampshire in his day, and his father and grandfather before him were noted shots. On the "other side of the house" my grandfather was a "dead shot," and during his Western life among the Indians and on the trip to California in '49, did shooting that proved him an expert.

As far back as I can remember I have been "crazy" for a gun, and my parents tell of my lying flat on my stomach on the floor with a picture of a gun before me by the hour, perfectly happy, when I was still in kilts. I owned and used several "guns"—.22 caliber "Captain Jack" revolvers and the like—years before I was "old enough," as my parents then told me, and was considered quite an expert by my playmates, who gave me the title of "Dr. Carver"—a pseudonym which still clings when among the old crowd.

As soon as I was allowed to have a gun, I traded my only pair of skates for a little,

D. W. KING, JR.

single-barrel shotgun and immediately started in hunting for the market, as there was a bounty of 25 cents each on hawks and eagles. Many a one fell to my bag and with the proceeds I bought ammunition and more and better guns. At the age of sixteen I had in my arsenal thirteen revolvers, two rifles, two shotguns and a double-barrel gun with one rifle and one shot barrel, with cartridges, powder, lead and bullet moulds enough to start a shop.

Every holiday, and many times after school hours, I was after something and generally got it, as I was very lucky in finding and killing my game; it seemingly came natural for me to find it and killing it was no trouble. I always looked in disgust upon any of the boys who would take a rest—and especially with a shotgun as they sometimes did. I always shot strictly off-hand and believe it the proper way to begin, as there are very few times when a man can get a rest when hunting and if he has not practiced off-hand shooting he is pretty liable to score a miss.

My target shooting career began at the regular turkey shoots that were always held at Thanksgiving and Christmas. At first I used to "spot" the shots for those who were shooting and at that time had eyes good enough to see a bullet hole easily at sixty yards. Sometimes I would be permitted to shoot a shot or two, which well repaid me for my trouble.

When I was able to own my own target gun (a .32-20 Marlin repeater) I had great expectations; but I made the mistake that thousands are making every day, of thinking that anything that was .32 caliber would shoot in a .32 caliber gun. Most people, the same as I did then, think that if you have ammunition for the gun and it does not shoot well, that the gun is no good. In nineteen out of twenty cases where a gun is condemned the fault is with the ammunition, and if it is properly loaded, using the right kind of powder and the right sized bullet of proper hardness, any modern gun of standard make will shoot much better than any man can hold it.

Many people think that factory ammunition should certainly give best results in a gun made by the same people, but in a majority of cases there is some particular load that will do better work if one will only experiment a little and find out what it is. Of two guns of the same caliber and made by the same factory one may shoot considerably better than the other with a certain load. So do not hastily condemn the apparently deficient gun, for generally a slight change in the powder or bullet will make it shoot perfectly. There are very few poor shooting barrels ever get out of the factories, the fault in most cases is with the "man behind the gun" or the job lot ammunition employed.

To return to my own experience. I got my sights just to suit me, loaded up my shells and proceeded to make a target. The last ten shots—sixty yards at a rest, they always shot at rest for turkeys—were in the size of a dollar and several of them were "tacks." This was very good with open sights. I then proceeded to mould some more bullets and load more shells for the turkey shoot next day. I do not remember what I loaded them with; I only know that the lead melted and made the bullets and I had powder in the shells.

The shooting match next day was "looking good to me," and my friend and I took a buggy along to bring home the birds. I could not seem to get my sights adjusted right at the shoot and kept changing them; I also changed the size and color of my "spot," yet for all that I could not keep my shots in a space the size of your hat. Of course, I was "joshed" a good deal, and when I finally took my last drink of cider

from the farmer's keg and started home with my one turkey (a scratch) I was much disgusted and had a gun for sale—for, of course, it was that gun!

From that time on I began to learn that anything that was merely lead and .32 caliber, with any kind of powder behind it, was not exactly to be explicitly relied on to do record shooting with. That same mistake is made and made every day, and by people who have not only the best outfits that money will buy, but who have had enough experience in rifle shooting to know better.

A very slight change in some small detail of making your ammunition, loading, cleaning and taking care of the gun will sometimes produce results that are astonishing. In some succeeding articles I will try to cover some of the above points and elucidate to the best of my ability the principles, knacks and wrinkles that underlie and constitute the theory and practice of modern rifle shooting.

A WORLD'S CHAMPION.

[We are pleased to announce that Mr. Dean W. King, Jr., will be a regular staff contributor to WESTERN FIELD hereafter, his initial contribution in this number being the introduction to a series of articles on practical rifle shooting, which we are confident will interest and benefit all lovers of the grooved tube.

No man in America is better fitted than is he to write about rifle shooting from a practical standpoint, for Mr. King is concededly one of the best rifle shots in the world, as well as a man of great intelligence, practical experience and much literary ability.

Everything pertaining to America's favorite weapon will be intelligently and exhaustively covered in the forthcoming articles, written in the clear and understandable style peculiar to himself. The various peculiarities of manufacture with the attendant results of each; ammunition and how to adapt it with best results; the various hints, wrinkles and little helpful tricks known to riflemen, to perfect their practise—all these will be elucidated in full.

As an evidence of Mr. King's skill as a rifleman we cite his recent remarkable performance of scoring, in three out of five consecutive 100-shot groups: 901, 907 and 908 respectively—or better than 90 per cent, the shooting being done at 200 yards, strictly off hand, on the Standard American target, his 908 group tying the world's record of H. M. Pope.

In 1,000 shots fired between August 16 and September 27, he averaged 87.28 per cent. He is regarded as the steadiest shooter of the rifle in the world to-day, and will try to tell WESTERN FIELD readers how to acqure a smiliar proficiency.—EDITOR.]

Negative by L. E Rea.

STRANDED.

By Arthur Inkersley.

SOME British golfers are saying that it would be a good thing to hold the championship events on new courses. They complain that year after year the same round is followed and the leading golfers fight out their battles on, the same five courses—St. Andrews, Hoylake Prestwick, Sandwich, and Muirfield. Golf has now assumed in Great Britain an importance that was hardly dreamed of when the first contest for the Amateur Championship was held on the St. Andrews' course in 1886. There are many golf courses in Great Britain which would furnish as good a test of the skill of the competitors as the five courses named, and it seems only fair that other centers of golfing should share in the benefits brought by a championship meeting.

While in the United States the cost of golf, polo, and other recreations, tends constantly to become greater, on account of the growing wealth and increasing desire for "exclusive" pleasures on the part of rich Americans, in Great Britain nothing that tends to increase the cost of the game is welcomed. It is sometimes suggested that the caddie, who has to be out in all kinds of weather, and at the beck and call of all sorts of employers, should receive a higher remuneration. But there golfers are men of moderate means, who would certainly resent anything that tended to make the game more expensive. It is, however, suggested that the life and work of the caddie might be rendered more comfortable by starting funds in the club smoking-rooms, and dividing the amount anually among the boys, care being exercised to see that the boys really get the benefit, and that their parents do not spend it in beer. Many British clubs give a dinner once or twice a year to their caddies.

Miss Rhona Adair, the English woman golf champion, has written for the December issue of golt, an account of her "Impressions of American Golf." She admits that her views are rose-colered and not particularly keen, but they are brightly expressed, and decidedly interesting. She thinks Mrs. Charles T. Stout (formerly Miss Genevieve Hecker), without question the best American woman golfer that she saw, and quite the equal of any woman golfer in the world. She expresses a great admiratton for the grit, sand, and "nerve" of the American woman golfer. Her lack of acquaintance with American slang has in this instance led her into the use of a word which, while quite true, is not so complimentary as she intended it to be. She says that the American women golfers keep on playing until their opponents' ball is actually in the hole. She also thinks that there is much more sociability and goodfellowship connected with the meetings in the United States than with those in the United Kingdom. She observes that the girls in this country pay a great deal of attention to their clothes, and get up in fine weather, but are singularly careless when the weather is raining or unpleasant. She says that in England she has never seen women in such rough and unbecoming costumes as she has seen in the United States. The American golf courses are much better than she had expected, one or two of them being quite equal to the best links in Europe. The putting-greens in the United States are not usually so large as in Great Britain, but are quite as true on the average. Being much slower than British greens the ball may be hit harder. Miss Adair thinks that the rubber-filled ball improves a player's game, and adds to the enjoyment, since it lessens the exertion necessary to produce the same results. Miss Adair thinks that the ball flies as well here as in Great Britain, but that atmospheric conditions render an eighteen-hole match in the United States as tiring as a thirty-six-hole match in Great Britain. Hence, while she believes match play to be real golf, she thinks that the qualifying round is a necessary preliminary to American competitions. But, though Miss Adair's critical faculties were somewhat dulled by the cordiality of her reception, and (it may be added), by the uniform course of victory that she pursued, she is evidently quick, and did not fail to discover a few weak spots in American women's golf. The first is the lack of steadiness, which "the American player lacks more than any one other thing." Another very prevalent fault is that "American women devote too much time to perfecting themselves in one stroke, and not enough to the all-round development of their game. American women really drive quite as well as, if not better than, English women." She believes that a team of six or eight American women touring Great Britain would be beaten, but that the best British players would have to be in good form to gain a victory. Miss Margaret Curtis is a remarkable driver, and at times an extremely brilliant player, but so erratic that she cannot be considered to be in Mrs. Stout's class. While she admires the Amateur Champion, Mr. Walter J. Travis, and is surprised at the skill he has acquired in spite of not taking up the game till past thirty years of age, she

PUTTING GREEN AT DEL MONTE.

W. FREDRICKSON, LOS ANGELES COUNTRY CLUB.

does not think that his game compares with that of the best British amateurs so favorably as Mrs. Stout's does with the play of the best British women golfers. Then Mr. Travis is a Scotchman or an Australian, or both, and so cannot be reckoned as an American product. Miss Adair is strongly against the practice of employing professionals as caddies for women in tournaments. She sees no objection to a high-class amateur carrying a woman's clubs, because he also plays from a love of sport. The absolute uselessness of the American caddies is the reason advanced by those who advocate the employment of professionals, as few women can obtain the services of good amateur players, and those who do have too great an advantage in a tournament.

In England an attempt is being made to discourage players from wearing tweed coats, which are said to be convenient and comfortable, but not worthy of commendation. Players are urged to bear in mind the responsibility imposed upon them by tradition, and to procure two red coats—one for cold, and the other for warm weather, and, having procured them, not to neglect to wear them. In former days it was compulsory on members to wear the club uniform whenever they made a round of the links. In the old Glasgow club members taking part in competitions but failing to wear the uniform, had to pay the forfeit of a bottle of rum. Red coats add to the picturesque appearance of the game and lend it a touch of cheerful color. The red coat also serves to distinguish players from spectators, and to warn the latter to keep out of the line of fire. On these grounds it seems to be desirable to make the wearing of a red coat, with the facings and buttons of the clubs, compulsory in all club competitions. In this country people are fond enough of gay garments of any sort, but are so unwilling to do anything they are told to do that it would be hard to render the wearing of a red coat compulsory or to enforce the payment of the fine for neglect to don the bright raiment.

A man recently wrote to the New York *Herald*, complaining that negroes play golf on a certain public course, and saying that, although he liked negroes well enough in their proper place as menials and servants, he objects to their playing golf. Though he is not in favor of exterminating them, he declines to play golf again on the links in question unless the negroes are banished. Commenting on this, an English golf writer says: "In England, where all men, whatever be their color, meet on the same equal terms, we can scarcely conceive it possible that such things should be on the other side of the Atlantic." The English writer says that it "shows how stained and bitter is the race feeling in the United States of America." He calls the exclusive New York golfer's letter an "extravagant epistle," and says that the negro "returned a dignified, suitable reply, and, according to our way of thinking, certainly had not the worst of the argument." At Oxford University, which is generally considered to be the home of British aristocratic sentiment, I have myself, with other friends, breakfasted more than once at the table of a full-blooded African negro, and lunched in the rooms of a Cingalese, a son of a Cabinet Minister, whom I knew well, frequently entertained, and was entertained by some Japanese undergraduates, and a well-known graduate of one of the colleges of highest social repute had two Siamese living in his house. Young as I then was, and presumably more foolish than at my present age, I cannot remember entertaining a prejudice against any race of men, I did not like people who seemed to me ill-bred, no matter where they came from; and I like them no better to-day. It seems strange that an Oxford undergraduate, less than twenty years of age, and naturally imbued with the sentiments (prejudices, if you will) of those around him, should entertain much more liberal sentiments than a denizen of the largest city in the home of the free. That is, it seems strange if you do not know that no one is more wedded to his ideas of propriety than the American, and that the ideas are often very narrow ones.

For a tall golf story here is a hard one to beat. A player on a course near Manchester, England, tried to carry a pond guarding the green. He duffed his shot, and the ball landed in the middle of the pond far beyond reach. The player dropped another ball, and took a second shot. Again the ball went straight for the middle of the pond; but alighted right on the first ball floating in the water, knocking it to the bank, where it was picked up. The second ball richetted from the top of the other on to the green thirty yards away.

MRS. J. R. CLARK.

By Arthur Inkersley.

THOUGH Sir Thomas Lipton has spent much more money than any man of his generation in building costly yachts of the extreme type, vessels that are mere racing machines, and nothing else, it is interesting to learn from his own confession that he is not an admirer of them. He thinks that they are beautiful but entirely useless. Before the races between Reliance and Shamrock III. for the America's Cup had taken place, he expressed strong hopes of winning the coveted trophy, but said that, if he did take the cup back to Great Britain, American yachtsmen would have to build a different kind of boat from either Shamrock or Reliance to get it back. Having been on the deck of his yachts on at least two occasions when they were dismasted during heavy squalls, he knows to the full dangerous nature of the beautiful but frail creatures. Not only are they dangerous but useless as well. They teach no lesson to the thousands of men who earn their livelihood upon the seas and do not aid the science of shipbuilding. "They are mere racing machines, nothing more and nothing less. When these races are ended, they are worthy only so much as the metal within them will bring. . . . In order to meet the requirements of the defenders, I had to build Shamrock III—good-for-nothing, beautiful creature that she is. But if she wins the cup, I will cherish her for the glory that was hers. Yet, in that case, never will her type race again for the America's Cup, unless it again leaves its native shores for the United States. If the cup goes to Ireland, England and Scotland, the challengers must build an honest boat, a healthy boat, a real boat, to meet the defender on the other side, if I live and have any voice in the matter." This is how Sir Thomas expresses himself.

It is a curious fact that George Lennox Watson, the famous designer, was born in 1851, the very year in which the schooner America captured the silver cup, valued at 100 guineas (or $500), offered by the Royal Yacht Squadron for a race round the Isle of Wight, open to all the world. His father, Dr. Thomas Watson, was a clever Glasgow physician, and his mother was a daughter of a well-known engineer, and contemporary of George Stephenson. G. L. Watson served his apprenticeship at the works of Robert Napier & Son, and of A. and J. Inglis on the Clyde. His first ventures in yacht-designing were Peg Woffington, Clotilde and Vril, all of which proved successful crafts, and brought young Watson several orders. Later, he designed Veroc and Finesse, which are still (or were in 1902), afloat on the waters of Lake Ontario. Then he designed a ten-tonner, the skipper of which was John Barr. His first big cutter was the ninety-tonner Vanduara, which beat the 100-tonner Formosa, owned by the (then) Prince of Wales, and considered invincible, seventeen times in succession. He went on to design a sixty-ton cutter, a 120-ton yawl, and a big schooner, all of which were successful. His first vessel to attain world-wide reputation was the Scotch challenger for the America's Cup, the yacht Thistle, which was bought by the German Emperor and renamed Meteor.

The most successful of all by L. Watson's yachts was the (then) Prince of Wale's Britannia. He also designed the three Valkyries for Lord Dunraven, and Shamrock II for Sir Thomas Lipton. In 1893, the cutter Brittania won the Cape May Challenge Cup, which had been won in 1885 by Sir Richard Sutton's Genesta, challenger for the America's Cup. The race for the Cape May Cup was something like a race, being over a course of 216 miles from Sandy Hook lightship to and round the Southern Lightship of Five Fathom Bank and back. The only competitor was the schooner Dauntless, which was beaten by many hours. The Cape May Cup has not been challenged for since Britannia won it in 1893, and is still held in England. Brittania won the trophy by beating R. P. Carroll's yacht Navahoe, which had been brought across the Atlantic chiefly for the purpose of competing tor the Gold Cup, valued at $2,500, offered for international competition by the Royal Victoria Yachting Club at Ryde, Isle of Wight. In the race for the Gold Cup Brittania beat Lord Dunraven's Valkyrie II, Navahoe, Satanita, and Culluna. The race for the Cape May Cup on September 15, 1893, was over a course from the Needles to and round the breakwater at Cherbourg and back, a distance of 120 miles, and was won by Britannia by more than thirty-six minutes. A race for the Brenton Reef Cup over the same course was awarded to Navahoe, her owner's protest on the ground that a stakeboat had been moved being considered valid.

The German Emperor, who, in spite an overweening Teutonic conceit, is really an acute man, is thoroughly persuaded that British greatness is largely due to the fondness of the British for healthy outdoor sport. Hence, he has endeavored to introduce into the Fatherland the outdoor sports in which Britons excel, such as steeplechasing, polo, rowing, and yachting. The German, though often of fine physical proportions and strength, is more likely to be a fine turner, or indoor gymnast, than a good oarsmen or polo player. New exercises practised in the close, almost fetid atmosphere of a crowded gymnasium, while they develop and strengthen the muscles, do not give the health, animal spirits and gayety that are afforded by sports enjoyed in the open air. It was not until 1881 that sailing races first took place at Kiel, the chief naval station of Germany. In that year there was a race between four yachts, the largest of which was a thirty-footer, bought on the Solent the year before by a German lieutenant, who had sailed her across the North Sea and through the Canal to Kiel. The others were of German build, two of them being owned by the Hereditary Grand Duke of Oldenburg, and the third, a skimming-dish, being from the plans of a German designer. The skimming-dish won easily in a light breeze.

Next year, 1882, a regatta was got up by some naval officers on the Fjord of Kiel, and proved so successful that the Norddeutscher Regatta Verein took up the sport and offered prizes for competition annually, on the Baltic Sea. In 1883 twenty yachts started, two from Denmark, eight from Kiel, and the

rest owned in Hamburg. One of these boats was a ten-tonner, of the plant-on-edge type, and is said to have been "for many years the fastest pleasure craft afloat." It was broken up not long ago at a Hamburg shipyard. For a second regatta held in the same year at Kiel, twenty-one entries were received.

The popularity of the Kiel regattas kept increasing, and in 1884 the list comprised twenty-five entries. In 1885 Prince Henry of Prussia, at the helm of his small craft Nelly, won second prize in the races of the Friedrichsorter Regatta Verein, which was founded by naval officers two years before. This gave quite an impetus to the sport of yacht-racing in Germany, Where Imperial favor counts for a great deal.

In 1886 the German Admiralty ordered two yawl-rigged pleasure craft, which were placed at the disposal of the naval officers at Kiel, so as to encourage the taste for sailing among them. Later two more yachts were built. One of the first two, Liebe, took an extra prize for fastest time over the course at a regatta of the Norddeutscher Regatta Verein.

These regattas attracted many foreign yachts, chiefly from Denmark and Sweden, in both of which countries yacht racing is a highly developed sport. In 1887 the Marine Regatta Verein, or Navy Regatta Club, was formed, and from this sprang the Imperial Yacht Club. In the first year the club had 251 members and thirty-one yachts. At the two regattas held during the season 110 boats were entered. Next year the club had 344 members, owning a steam yacht, two steam launches, seventeen sailing yachts, and a dozen small sailing boats. The largest vessels of the fleet were the forty-ton yawl Carlotta (formerly Vega), built in 1872 at Gasport, Isle of Wight, and the thirty-two-ton schooner Hela (formerly Daring), built in 1871 by M. E. Ratsey at Cowes, Isle of Wight.

The accession of Emperor William to the throne in 1888 helped German yachtsmen greatly, for His Majesty presented a handsome challenge cup for service boats, and his brother, Prince Henry of Prussia, became President of the club, which in 1902 had 404 members, and thirty-seven yachts on its rolls. Next year the Emperor was a spectator at the races on the Fjord of Kiel, starting on the same day for his first cruise in northern waters—a holiday he has taken every year since.

In 1890 the club numbered 458 members and forty-one pleasure craft. At the club regatta in the fjord, sixty-seven boats started. The regatta at the mouth of the fjord attracted twenty-two yachts, the principal ones being A. Burmester's Atalanta (formerly Wraith), built on the Clyde by Fife in 1879. In the early days of her German racing career she won many prizes, but is now outclassed, though she is still a perfectly seaworthy and comfortable cruiser. The Emperor distributed the prizes won in the regatta of that year and sat for some hours afterward in the club-house "with a stein on the table."

In 1891 the Marine Regatta Verein was dissolved, being reformed as the Imperial Yacht Club, with the Emperor as Commodore, and Prince Henry of Prussia as Vice-Commodore. The club had quarters in the Naval Academy on the Fjord of Kiel, having at its disposal the large hall, broad balcony and beautiful grounds of the Academy. The new club had 505 members and fifty yachts. The opening cruise of the club was a welcome to the yacht Meteor (formerly Thistle) which had been bought on the Clyde for the Emperor. A week later the yacht Irene, built for Prince Henry, reached Kiel. In 1892 the club got up three regattas, one on the open Baltic Sea, one in the Fjord of Kiel, and one for service boats. Besides these regattas an ocean race over a distance of seventy-six miles was organized in conjunction with the Norddeutscher Regatta Verein. These events were highly successful, no fewer than 130 entries in all being received.

In 1895, Vineta, ranked as a twenty-rater, was built at Kiel from designs by G. L. Watson for the Emperor. In one of her first races she was badly strained in a choppy sea off the mouth of the Fjord of Kiel and never proved a successful racer. When the Emperor received the second Meteor he presented Vineta to a brother-in-law, Prince Ferdinand of Schleswig, etc.

To encourage native talent, the Emperor offered an annual money prize for a vessel designed by a German, built in Germany from German material, and manned by Germans. This offer caused the yachts Hertha, Ellen and Johanne to be built.

Prince Henry's yacht Irene, built on the Clyde, is a forty-rater designed by G. L. Watson, and for a few seasons carried off everything in her class on the Baltic Sea. In 1894 the yachts Varuna, Lais and Carina, the last owned by Admiral, the Hon. Victor Montagu, proved easily superior to her, and in 1896 Prince Henry bought from Lord Dunraven the cruiser L'Esperance. Prince Henry also owns the small racer Gudruda, which was built by the Herreshoffs, and has been the nucleus of a fine fleet of two and one-half raters on the Baltic. On June 16, 1896, the Emperor's yacht Meteor, in tow of a torpedo boat, reached the Baltic end of the Kaiser Wilhelm canal. The Emperor's yacht Thistle (formerly Meteor) was now renamed Comet, and was turned over to the Admiral in command of the naval station, to be used as a training-vessel for yacht sailors. The sport of yachting is so comparatively new in Germany that there exists no distinct class of German yacht-sailors, similar to those in Great Britain, where generations of men have followed the occupaton.

Owing to the close commercial relations between Hamburg and Great Britain, the sport of yacht-racing has long been known in that city, from which it spread to the sister Hanseatic town of Lubeck.

The Baltic Sea is an ideal cruising-ground, almost no tides. Kiel has a large and sheltered harbor, and in the open Baltic outside there are plenty of ports in which refuge from storms may be found. Kiel is also near to Sweden and the Danish Islands, where yachting has been a favorite sport for a long time. Many Danish and Swedish yachts, well kept and finely handled, take part in the Kiel regattas.

A ROCKY LEE SHORE.

By Arthur Inkersley.

F. A. HYDE, President of the Automobile Club of California, some time ago suggested that horses should be educated to regard the automobile without alarm. He offered to provide automobiles for the training of horses, and sent out a circular to this effect to horse-owners and livery-stable keepers. I do not think that many of the horse-owners of San Francisco and neighborhood availed themselves of this opportunity of acquiring an education for their animals. The same idea has been carried out in Cincinnati, where a man named James S. Neave sent his horse to an automobile establishment for two weeks. The horse was placed in a stall in the same room as the automobiles in daily use, and was often led up to the machines when they were being made ready to start out. Gradually he lost his fear of the automobile.

The Electric Vehicle Company has brought out a new Columbia electric runabout. It is intended to be the lightest two-passenger electric car that is of practical use. It seats two persons comfortably, has a speed of at least fifteen miles per hour on the level, and can travel forty miles on one charge. The battery is divided so as to distribute the weight evenly over the front and rear axles. The body rests on four long semi-elliptic springs built up of wide, thin plates. The motor and all the working parts are attached to the body. All parts of the mechanism are inclosed so as to exclude dirt. The machine has three speeds forward and two speeds backward.

The Gordon-Bennett International Cup race was won last year by Jenatzy, a Belgian, who drove a Mercedes car of German manufacture. The car was owned by Clarence G. Dinsmore, an American, who, it is said, will bring it to the United States. It is of sixty horse-power.

Most automobile owners and many builders of motor cars acknowledge that four-fifths of the runabouts of standard make on the market have not enough power for general use, especially on rough country roads. Experience has proved that a large surplus of power strains a car less than a lack of power does. It is very hard on the chain, shaft, axle, and bearing to speed an engine in order to get up a steep bit of road or out of a rut by the momentum of the fly-wheel, and this sometimes has to be done when a car possesses too little power.

Almost everything in any other part of the country or in any other country can be equalled or surpassed in California. Florida has long boasted of its wide stretching, coquina beach, but at Pacific Beach, a suburb of San Diego, is found a stretch of strand quite equal to the Florida beach. It is four miles long, 600 feet wide, and as firm as asphaltum. It is to be hoped, indeed, that it is much firmer than the bituminous pavement laid down on Market street by the politicians. It is a grand place on which to put an automobile to its greatest speed, and is said to be attracting many motor-car owners. The automobilist may dash along at the highest rate of speed without fear, as there are no holes or uneven spots.

WATCHING THE RACES.

The beach ends where the waters of Mission Bay run round the point of the peninsula into the Pacific Ocean. For two miles a fine view of San Diego Bay and the Pacific Ocean is obtained, and to the east is the suburb of Pacific Beach, the houses and gardens of which go up as far as the foothills. In the background are snow-capped mountain peaks.

It is said that the British are investing a good deal of money in French and other Continental automobile manufacturing concerns. The Durracy Company now writes after its names the magic word "Limited" and has increased its capital considerably. This amalgamation of French and Brtish interests is regarded approvingly on both sides of the English Channel, though not much is said about it in the press. The French have built up a high reputation for the manufacture of handsome private motor-cars, but it may be that they have perceived that in the future the manufacture of business vehicles will be of greater importance. Perhaps the wily Frenchmen, after selling out their factories for the production of *voitures de luxe,* will turn their skill and ingenuity to the development of the business motor vehicle.

It is satisfactory to find that some at least of the manufacturers of motor-cars are beginning to perceive (what has long been obvious to the person of intelligence), the absurdity of designating cars as "1902 model," "1903 model," and so on. This method of distinguishing one type of car from another seems to have acquired a strong hold on the public. It used to be the fashion to designate bicycles in precisely the same way. The same thing is done by the manufacturers of cameras, and of many other things. The advertising manager of the Peerless Motor Car Company, says that he thinks this is unwise for several reasons. Of course, by the use of the term "unwise" he does not mean that it is illogical, that it does not conform to right reason, or anything of this sort, but merely that it does not tend to increase

the sale of motor-cars. He states, however, that the Peerless Motor Car Company does not wait a year before making any improvements in their cars, and that it does not think it good policy to discard a feature already proven valuable just because it happens to have been used on the car of the year before. The Peerless Car Company is, accordingly, distinguishing its cars by types rather than by year names.

Commenting upon this, the editor of *Automobile Topics* makes the following remarks: "Is it not about time to drop the absurd notion of classifying machines by the year of their make, 1902, 1903, 1904, and so on? Such a rule may have been all right in the bicycle business, where every schoolboy who could save enough out of his pocket money to pay weekly installments was a prospective customer, and where the tricks of the trade were devious and dark. But such a transparent, not to say meretricious, device should have no place in a serious business, as the automobile trade is to-day." These comments are evidently meant to be favorable, but are actually most injurious. The admissions are made that the bicycle business was conducted in "devious and dark ways," that it employed transparent and even "meretricious devices" and that it deliberately devised plans to impose on schoolboys. Now many of the men who were formerly engaged in the bicycle business as manufacturers, dealers, agents, salesmen, and operators, are in the automobile business. Have they entirely changed their characters, dispositions, and tactics because they are dealing in four-wheeled instead of in two-wheeled vehicles, or because the buyers of automobiles are generally men, and therefore not so easily imposed on by "meretricious devices" as schoolboys? Or have these men been so affected by the seriousness of the automobile trade that they have abandoned all the evil practices of bicycle manufacturers and sellers? It seems to me that the man who would cheat a schoolboy in the purchase of a bicycle worth thirty or forty dollars would have no hesitation in "doing up" a man in the purchase of an automobile costing three or four thousand dollars. The man who is willing to adopt meretricious devices, and to follow devious, dark ways in one trade will follow them in another; and he who will cheat for a small profit will cheat for larger gains more willingly. The comments of the editor of *Automobile Topics* go to show how dangerous a bad advocate may prove. The letter of the advertising manager, while not written from any higher point of view than that of the salesman, is sensible enough, and tells its tale sufficiently clearly. The comments of the editor are full of the most damaging implications.

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H. L. Betten, Editor.

"The poor dog, in life the firmest friend,
The first to welcome, foremost to defend,
Whose honest heart is still his master's own,
Who labors, fights, lives, breathes for him alone."
—Byron.

THE TRAINING OF THE FIELD DOG.

No. 9. "Pointing."

AS A RULE pointers and setters possess the pointing instinct to a sufficient degree and it is only in isolated cases that it is entirely absent. The keenness of a dog's olfactory powers and the amount of caution he exhibits have much to do with the exhibition of this instinct, and in overcautious animals it is very often present to a harmful degree. Contrary to the very general belief the early development of pointing in a puppy is no sign of merit and many youngsters which show precocity in this direction mature into overcautious pottering false pointers with a tendency to stop the moment the faintest scent strikes their nostrils.

On the other hand there are many dogs which fail to show the presence of the pointing instinct until some time in their second year and such have often been condemned as worthless when the exhibition of common sense and patience on the part of their owners or handlers was all that was necessary to develop a superior field dog. You may take such a dog afield time and again, and give him unlimited opportunities on birds, and all to no avail until some favorable opportunity suddenly develops the latent instinct and the dog surprises you by "jumping" into a staunch point. Once this is done it is more than likely that he will repeat the performance whenever a favorable occasion offers and in the majority of such cases there is little likelihood of developing a "false pointer."

Now it must not be imagined that the time spent in developing the pointing instinct in such a dog is wasted. Far from it, for while he seemingly may show no improvement he is acquiring an increased knowledge of the habits and haunts of quail or other game birds that will stand him in good stead when the pointing instinct does make its appearance.

In the majority of cases where the pointing instinct seems latent in matured dogs its insufficiency is due either to inferior olfactory powers or to the presence of foreign blood such as that of the collie or other non-pointing breeds and no amount of development will make superior field performers of them. In a field dog a keen nose is synonomous for brains, for either is of little avail without the possession of the other and a really high-class animal invariably possesses both requisites in their greatest perfection. The dog with inferior scenting powers is usually a slow-witted fellow or else a wild rattle-headed dog possessing no fixed methods of hunting and just as likely to range over barren ground as over "birdy" territory. The latter must not be confounded with the high-strung dog, full of nervous energy, whose excess of vitality leads him to occasional exhibitions of rankness through mere deviltry as it were. Such a dog will soon settle down and perform in a brilliant manner while the rattle-headed nonentity simply fritters away time, and while to the uninitiated he seems always on the verge of "doing something" results are nil.

On rare occasions a dog with an inferior nose will develop into a really clever performer, due mainly to the possession of the proper degree of caution and use of his reasoning powers. At the first intimation of the presence of birds all of his faculties are aroused and he uses every precaution to

Dodge, Photo

"STAUNCH AS A ROCK."

avoid flushing them. Nevertheless he always works under a handicap and his performances must suffer in comparison with those of really high-class field dogs.

One can hold out little hope to the possessor of a mongrel which lacks in the pointing instinct. Such an animal is valueless no matter how closely it resembles the purely-bred pointer or setter, and the time spent in further education is worse than wasted. Furthermore, breeding from such an undividual is little less than a crime, as the taint in its blood is likely to be present for many generations, and will be a potent factor in producing a line of inferior field dogs. If, however, the dog is purely bred, and the absence of the pointing instinct is due merely to some freak of nature, he may be taught to stop or drop when he recognizes the presence of game which will be but one remove from blinking. There being nothing instinctive about his acts it would be necessary to enforce strict obedience and it is a question whether such an animal would be worth the expenditure of time necessary to perfect his training in this direction.

Assuming that your puppy has enjoyed a sufficient period of self-hunting, and has already given evidence of the pointing instinct by establishing three or four rigid points, the next step in his education should be the lengthening of the pauses between the points and the "springs" or flushes. The point is merely a momentary pause during which the dog, if left to his own devices, will attempt to locate the exact position of the bird and prepare to pounce upon it. The length of such natural pauses varies with the individuals, the cautious dog devoting more time to the proper location of the bird than does an eager enthusiastic animal. (Continued experience makes many untrained dogs very expert in catching game unaided by the sportsman, and the man who leaves such an animal run at large during the breeding season should be held accountable by law for aiding and abetting the violation of the codes relating to the protection of game.)

If your dog shows any timidity when in the presence of game it is always advisable to leave him to his own devices until he will road, point and flush with a show of determination. To use stringent measures in steadying such a dog on point before he exhibits a certain amount of boldness will often result in the development of the exasperating habit of blinking which is most difficult to overcome. A blinking dog is one which readily recognizes the presence of game but which through fear aroused in connection with pointing is afraid to establish a stand and will steal away from the birds or refuse to go near them at all. You teach your dog to "blink" chickens by chastising him when he pursues them or kills them. He soon learns to associate the pursuit of chickens in the unpleasant after results and consequently he thinks it a wise policy to remain aloof when in their vicinity. The same readily applies to game and it is a habit which is not easily cured. Fear of the gun will cause many dogs to blink birds as will loud boisterous commands when they are working on game, and the amateur handler who has undertaken the training of such a difficult "problem" will do well to curb his desire to shoot over a puppy's first points unless he is certain of the results the report of his gun will produce; the same applies to the suppression of undue vocal demonstrations as it is not likely that his lungs will need expansive exercises on those particular occasions. A blinking dog will often run all day, seemingly hunting with a will and yet accomplishing nothing. Some dogs are very adroit and while recognizing their trainer's desire to have them point, will, through their own dislike of birds, carefully work away from them, at the same

Dodge, Photo

DODGE'S "STELLA II."

time conveying the impression that they are eagerly searching for them. Such animals need careful handling, and are often benefited by a longer period of self-hunting during which they should be allowed to hunt at will in company with a bold self-hunter. If it is the gun alone which they fear a cure is readily effected as soon as they overcome their dislike for firearms.

Once your puppy points with the proper degree of decision and boldness staunchness should be established by carefully suppressing his desire to flush the birds. In the majority of cases this can be done without resorting to punishment, and the individuals perfected in this manner will exhibit greater reliability than those taught to stand firm through fear of their trainer. If your puppy has been taught to "ho" or "stop" to command, your task is very often an easy one, especially if he has been thoroughly schooled in this order. Very often all that is necessary is to use the command at the slightest evidence of unsteadiness, but a far better plan in all cases is to calmly walk up to the puppy (if time will allow) and standing beside him place a restraining hand on his collar while with the other you gently rub his back or hold his tail in a rigid position. When he moves forward a few inches, immediately return him to his original position with a few chiding words gently spoken, and force him to retain it until the bird is flushed or you are satisfied it has run from the point. If your control over the puppy is so absolute that you can walk in and flush without him leaving his position all well and good, but if not, you can either slip on a choke collar and fasten the short cord attached thereto to any bit of cover likely to withstand the strain incurred by the puppy's surge when the bird flushes or use some means of flushing it while you stand at the puppy's head and check his tendency to rush in. This can often be done by making use of a light cane rod (six or eight feet long) with which to beat the cover in front of the puppy while you hold his collar during the critical moment. Of course it is not always practical to carry such an implement and the average amateur is more inclined to carry a gun instead, but properly used it will greatly aid the handler, providing he does not consider it a weapon with which to inflict punishment and belabor the dog with it. A light tap with the tip properly administered might prove of inestimable help in steadying a puppy inclined to move in, but that is as far as the handler should go except in the case of a willful, stubborn dog when the substitution of the whip and spike collar is sometimes demanded.

Absolute staunchness should be demanded of the puppy and a willful flush must not be overlooked. In such cases the puppy should always be returned to his original position when he established the point and reproved for his unsteadiness. It is also well to remember that he should be held in a rigid position for at least one minute after the bird has been flushed to a staunch point so that there will be no temptation to "break" in and chase; also the length of time the puppy is held on point should be increased, until he remains rigid for five or ten minutes if necessary to establish absolute

Dodge, Photo

A DOUBLE EXPOSURE ON "IVYWOOD" (ENTIRELY DIFFERENT LOCATIONS).

staunchness. At times you may hide behind some bit of cover in the vicinity of the puppy and watch his actions. It is probable that after he has held the point for a reasonable length of time he will look about and if he does not see you will be guilty of actions not in the least desirable. If so, you have but to show yourself, and chide him for his shortcomings, meanwhile returning him to the spot where he should have remained and he will soon begin to think it unsafe to hustle up the birds, even if you are out of sight, and if he possesses the right disposition will become staunchness personified.

There are isolated cases where pointers or setters possess such cold-blooded natures that neither praise nor verbal reprimands affect them in the least. With such, the whip and spike collar may prove desirable aids in enforcing staunchness and a few snubs properly administered with the latter will often work wonders with a seemingly incorrigible flusher. The amateur should not endeavor to break his dog's neck with a vicious tug as the animal reaches the end of the cord, but should have the latter of a goodly length so that the stretch of the line will ease the shock. Even then the dog will not be overpleased with his treatment and a few repetitions will cause him to have a wholesome respect for the collar. In extreme cases the whip may also be brought into requisition, but the handler should always walk to the dog when about to punish him instead of calling him in to be whipped. The cord gives you a ready means by which to reach him and he cannot escape you. Even when such a dog appears to be thoroughly broken of flushing it is well to leave the spike collar on his neck. The cord can be nicely coiled and tied to the collar with a bit of linen thread. About six inches of the end should project from the coil so that when you go to him you can readily grasp it. Should he attempt to break in he will not notice the resistance offered by the thread, as it breaks and will rush to the end of the cord only to be met with a snub. Certain individuals are so cunning that they take advantage of the handler's absence even when the spike collar is on his neck. With such it is a good plan to walk up and attach an additional piece of cord to the knotted end of which protrudes from the coil and fasten this to any bit of cover which will offer sufficient resistance to withstand the rush of the dog. Then leave him taking particular pains to let him see you walking away. Unless he has been well disciplined the desire to see the bird fly will overcome him before long and he will start off complacent in the belief that your eye is off him, and he can please himself in the matter at hand without rebuffs from you only to be brought up with a round turn. Sooner or later he will realize that his will must bend to yours and will reluctantly submit. Such a dog never proves as reliable on point as those which observe a proper degree of staunchness through a desire to please their trainer, and will take advantage of the slightest relaxation of vigilance on his part. Placed in the hands of irresponsible parties who fondly imagine they are gifted in the handling of dogs and unluckily purchase one of the above disposition, the handler's work of months is undone with startling celerity and the rapid manner in which such a dog will back slide is truly astonishing to all but the initiated. At some future time I shall devote a chapter to the thorough "breaking" of the aforementioned class of dog purchasers. Special instruments of torture will be devised and it is hoped that many will come out of the ordeal sadder and wiser men. The majority, however, are incorrigibles of the worst type and little hope is held out in their cases.

SHE IS SURELY A PEACH!

THE magnificent work of Mr. W. W. Van Arsdale's great little Peach Blossom at the Illinois Field Trial Association's championship trial held at Robinson, Ill., November 20-21, was as much a revelation to Eastern fanciers as it is a gratification to every lover of hunting dogs on the Pacific Coast. It most effectually dispels a curious Eastern illusion about the quality of coast dogs and our Oriental friends are yet destined to find out that quality is here in quantity as well.

That Peach Blossom captured the hearts of all our Eastern brethren is fully evidenced by the following excerpt from the *American Field's* excellent report of the trials:

Peach Blossom's success, measured by her previous performances in the East, was great. Entering the trials under a handicap at the outset, that of having been bred and reared in the Golden State (where climatic conditions are unlike those which prevail in Illinois) and broken on valley quails, whose habits are much unlike our bob whites. She came East only a few weeks before the trials, and as a matter of fact, had to get acclimated. This overcome, the next step was to get her acquainted with the habits of our quails, which she took to readily, and has justified the prediction of her owner, W. W. Van Arsdale of McCloud, Cal., who is quoted as saying before she came East that Peach Blossom, when right, could put up a great race. Peach Blossom will now wear all the laurels of a champion without a voice being raised in dissent. *She stands alone as the field-trial champion English setter bitch of America, and won on her merits;* this much must be conceded by those who followed the running closely, and there were quite a number. At the finish of the first series it appeared to be a game of give and take, with Peach Blossom showing up much the stronger. However, there were several other dogs in the stake whose work at the start was splendid, but toward the close they weakened and were not strong enough to reach the goal.

Peach Blossom is a small white, black and tan, and ticked bitch, by Champion Count Gladstone the Fourth-Peach Mark, the latter well known for her goodness, and runs almost with the speed of a greyhound and with the determination of a terrier. She has well-bent stiffles and let down hocks, as free in their movement as an eight-day clock. She has cat-like feet whose pads are as pliable as rubber. Her front legs are as straight as a pair of gun barrels, and are let into nice sloping shoulders. Her neck is long and round, and free from throatiness. Her body is short, deep and rounded, with well-sprung ribs that give her heart and lung room. Have we finished her? No, she has a beautiful disposition, and is easily handled and her blood lines are nigh perfect.

Peach Blossom made her field-trial debut at Coronado, Cal., January 14, 1901, where she won second in the Pacific Coast Field Trial Club's derby, and first in the All-Age Stake, same season. She divided second in the Pacific Northwest All-Age Stake, 1901; and divided third in the Pacific Coast Field Trial Club's All-Age Stake, 1902, and was first in the same club's all-age stake this season.

Mr. Van Arsdale must have been greatly delighted when he was apprised of Peach Blossom's success by the *American Field,* she being the first winning setter hailing from the Coast. Proud, too, indeed, must be Mr. Askins, her handler; so must any handler be who sees his dog win such a classic event.

Whatever further triumphs are in store for Peach Blossom—and so far as present appearances go she looks like scoring a sequence in January next—her recent victory will suffice to demonstrate the value of pure blood.

While "Peach" is indubitably the present queen of Mr. Van Arsdale's extensive kennels she is by no means the only blossom on the tree, as we predict future events will show. There are others in his magnificent aggregation that can hold their own anywhere—be the company what it may—for this prince of sportsmen has spared neither trouble nor expense to improve the blood of our Western dogs. We owe him not only congratulations but our sincere thanks as well and both are his by universal acclamation.

"PEACH BLOSSOM'S" GOOD BREEDING IS EVIDENT.

SETTERS AND SPANIELS.

By G. A. Cranfield.

AND PRAY what is a gentlemen without his recreations? That old line never came to the writer with greater force than when he scanned the pedigree of a brace of Gordon Setters that are up for sale this week.

The Kennel Club of England is rather circumspect in the way it describes this breed; "black and tan or Gordon Setter" is the accepted terminology which, of course provides against the young man who will persist in writing to the papers to acquaint his grandfathers that the original setters associated with the Duke of Gordon and Richmond were black, white and tan. Such, however, was really the case but gradually breeders have got them to the two colors, and very handsome dogs they are. To-day, if you own a Gordon, it is just as well he should have no white in him.

In the pedigrees referred to I noticed the name of Champion Heather Grouse; it may be he was the best looking black and tan that ever lived. Heather Grouse, of course, belonged to Mr. Robert Chapman of Glenboig, Scotland, and a wonderful team that evergreen owner of dogs could turn out. They earned their livings at the shows and in the field. In the summer they were on the benches, but when St. Grouse, and later St. Partridge, were announced, they were found in the heather and among the stubbles and turnips. Of this valuable strain are a number of the Gordons in this country.

The Gordon of the present day is a much improved setter, and a good deal of coarseness has been bred out of him. The days of the old slobbering setter are about over, and the dog that can go the pace is the one required. The snuffing, pottering setter might be the one to suit the laggard and the lazy but you can not win a field trial with him, for the smarter dog is past him, finds the game, and never gives him a chance. In this way has the modern black and tan setter a great pull over the old spaniel-typed specimen that was accredited with being able to consume his own weight within a week. The Gordon of to-day is a stylish, racy looking setter that might, perhaps, have a little Irish blood in him. Who shall say? The late Rev. Robert O'Callaghan, than whom a greater setter enthusiast perhaps never lived, used now and then, when I was privileged to be his guest at Borstal House, overlooking the River Medway, to throw out hints that Gordon blood was being introduced into Irish blood, and vice versa.

The mention of Mr. Robert Chapman must always perforce associate itself with the name of Mr. David Ballie, or "Scotch Ballie" as he was known in this country, for Davie Ballie came over to the states to manage the Lexington kennels in Kentucky. Now, if there was ever a "broad" Scotchman it was Ballie, and it was often hard for the Southron to make out what the gentleman from across the Tweed was conversing about. He was emphatic in his language and a glutton for work in the show ring. With a team of perhaps twenty dogs, made up of setters, spaniels, and collies, he would manage to be everywhere at once, and with half a dozen rings going he would be handling his own dogs—no small task since a dog must always be made the most of when the time comes for the judge to look upon him. He must be at his best and even a flat-catcher has been known to win. But Ballie was always there, and never in better form than at a big continental show.

I once strolled into a cafe in Rotterdam. On the other side of a screen dividing the booths there was a strange conversation going on that one could not help listening to. Playing the eavesdropper is a bad game, but one might be forgiven when the two parties prove to be an incompromisingly broad Scotchman and a well-to-do Dutchman who wanted to buy a setter. How they managed

it would be hard to tell, but Ballie afterwards told me that as a final attempt he put the price down in figures on the back of the menu card, and Mynheer produced the bullion. The Hollanders were invariably good buyers of dogs and a decent sporting one would always fill their eye.

The Continental shows were always most enjoyable, and perhaps it was because "the foreigners" were so good and went out of their way to give pleasure to those of perfidious Albion who would take it into their heads to cross over, win their money, and sell them dogs. For of a truth, the fame of the old country as a dog-producing one has gone forth to the world. As a matter of fact, the second string was generally taken, as there were many opportunities of passing along some whose room was required at home. And was it not the same in the old horse-dealing days?

He would perhaps be a bold man who would state definitely the origin of the spaniel, but his name would suggest that he came from Spain, where, indeed, others of our sporting breed were encouraged, notably the big, heavy, peculiar nosed pointer that is now very scarce. That the spaniel is one of our most useful dogs no one can deny and the temperament of the variety is a byword. Sweet of disposition, always bustling if there be the taint of feather or fur about, the spaniel will break himself; and, what is further a fact, the "gun" can tell from the voice of his cocker what game is about, for many spaniels will speak differently to hare and bird. Especially is this the case where the cocker spaniels are concerned. At times they are over-noisy, still, the little spaniel will find more game and furnish more sport in thick cover than the mute and slobbering clumber.

The cocker, of course, takes his name from being a useful dog for woodcock shooting, and the place where that game loves to feed and enjoy himself—cover that would be recognized as thick scrub in this country—requires a merry, willing little dog that is not afraid of gorse or thorns. He will rattle through it, and what is more wonderful, he generally drives the game to you, knowing that the gun and not himself is the proper instrument of destruction. Of course there are noisy babblers, rogues that would disturb every feather in the parish, but it is fair to surmise that the pleasure of the sportsman is at his highest when he is shooting over a team of cocker spaniels that will hunt well and thoroughly within range. It is true that the chief prizes at the recent field trials in England were won by clumber spaniels, but it would appear they were worked mostly in the open. This is hardly an ideal test for an every day gun dog. The merry little cocker should be of that character that would suggest "no cover too thick, and no day too long."

Mr. Harding Cot—than whom there is not a better all-round man in England—resigned from the Spaniel and Sporting Spaniel Clubs assigning as a reason that both sides are wrong in their types. The former goes in for a too long and low variety, while the latter favors an animal that has the impress of a setter on him. This will not suit the M. F. H. journalist, artist, amateur actor, horse and dog judge, and part proprietor of the English *Field*. So he is about to father a club to be called "The Field Sporting Dog Club," which will take under its wing all those breeds associated with the gun, notably pointers, setters, retrivers and spaniels.

PROMINENT ENGLISH SETTER SIRES.

OAKLEY HILL.

The field-trial season of 1899 will long be remembered as one of the most prolific in the history of the sport in so far as the development of high-class performers was concerned.

Prominent among the number (which included the great derby trio, Ch. Sioux, Ch. Geneva and Count Hunter) was Oakley Hill, a youngster of unusual quality, by that great sire of winners and producers, Ch. Rodfield, out of Sousie.

Oakley Hill did not come in direct competition with the above-mentioned winners, hence it was impossible to make comparisons. Competent judges, however, declared that Oakley, when running in his best form, was a match for either Sioux or Geneva, and the accounts of his running in the Iowa, Independent and Missouri derbies seem to bear out these statements. Certain it is that he was a youngster of the highest class, especially strong in bird finding qualities, stylish as a peacock and possessing matchless conformation, which enable him to defeat some of the best show setters in America.

As a sire, Oakley Hill must be considered a decided success, as he already has seven winners to his credit, and these from a comparatively small number of starters. Furthermore, his get exhibit to a marked degree the posssession of bird sense, which in the field dog is synonymous with brains and a useful commodity in these degenerate days when so little attention is paid to the mentality of our setters. Sooner or later a reaction will take place and the incestuous in-breeding which is fast becoming a fad will meet with the condemnation of thoughtful breeders. When this occurs the get of such sires as Oakley Hill will be held in proper esteem and much sought after.

TWENTY-FIRST ANNUAL TRIALS OF THE PACIFIC COAST FIELD TRIAL CLUB.

THE Pacific Coast Field Trial Club's twenty-first annual trials which were concluded January 15th have passed into history as one of the most successful meets held in the existence of this pioneer organization.

Weather conditions were almost perfect, but owing to the unusual drouth which has prevailed throughout the southern section of the State it was difficult for the dogs to catch scent of birds and consequently the amount of actual point work was somewhat limited during the running of the Derby.

Taken as a whole the class of the dogs entered in competition was far above the average of former years and a large number of high class youngsters were brought to the front. Some of these fell down through lack of experience on birds but will be heard from later on and certainly the breeding of so many promising candidates for field-trial honors presages well for the future of trials in this State.

Judge W. S. Bell, of Pittsburg, Penn., came here an utter stranger to the conditions that were to confront him but handled the competition in a manner which left no doubts as to his ability to judge trials under the most complex and discouraging conditions His executive ability, and keen discerning judgment of the dogs which ran under him, proved him to be in the first flight as a judge of high class field dogs and the club may pride itself upon the fact that it secured the services of a gentleman of his calibre, unbiased in opinion and whose every action was above suspicion. His awards were made on the strength of the actual work performed during the trials, and the reputations made in previous trials by well known runners did not deter him from cutting them out if they did not deserve further consideration. In no instance can it be said that he carried along a dog totally unworthy of mention, and if in one or two instances he failed to continue a dog possessing merit it was done with a full realization of the fact that to do so would prolong the competition to a tiresome degree.

The best of feeling prevailed throughout the meet and not one instance is recorded where an interested sportsman gave vent to expressions of ill feeling or acrimonious discussion. Such harmony is unusual even at the best regulated meets and speaks volumes in praise of the sportsmanship of field-trial devotees in this State.

Cuba's Glenwood, the winner of the Derby, is a very handsome liver and white dog by Champ. Cuba of Kenwood out of Petronella and was bred and is owned by the Stockdale Kennels. Glenwood showed himself to be an exceptionally good puppy and certainly a credit to his developers. He ranged wide and fast with a long frictionless stride which carried him over the ground without seeming exertion, and having a somewhat low carriage of head his style was all that could be desired. His work on birds was, considering the conditions, of a very high order and in this respect he had a decided lead over all competitors.

Cuba's Ivywood, winner of second, is a rather small liver and white pointer bitch by Champ. Cuba of Kenwood out of Petronella and consequently is a little sister to Cuba's Glenwood, winner of first. She does not class with Glenwood but proved herself an exceptionally clever performer on birds, which in the judge's estimation offset any advantage her competitors may have had over her in other qualities which go to make a high class field-trial dog. Her speed, style and range were good and she showed considerable judgment in handling birds under adverse conditions.

W. W. Richards, Photo

TERRY'S "LADY" (FIRST, ALL-AGE STAKE.)

Third place was divided between H. W. Keller's orange and white English setter bitch Sombra and W. W. Van Arsdale's black, white and tan English setter bitch Keepsake.

Sombra is a handsome bitch of refined type by Llewellin Drake out of Shadow and was bred by W. W. Van Arsdale. She is a remarkably smooth mover, has a good turn of speed coupled with sufficient range and a stylish way of going. In addition she has been endowed with reasoning faculties of a superior order and uses splendid judgment in searching out her ground. She is as yet not thoroughly developed but indications point to further improvement, when she is likely to become a dangerous competitor in the best of company.

Keepsake is a very small and compact bitch by California Bell Boy out of Peach Blossom and almost the image of her famous dam. Her weight can hardly exceed twenty-four pounds, and the quality she exhibited examplifies the trite saying that "good dogs come in all sizes." From the moment she is cast off until she is taken up Keepsake is a veritable perpetual motion machine. Her speed, style and range are of the best and she gives indications of making an exceedingly high class individual. At present she is not developed to the stage where intelligent judgment can be passed on her bird work but she shows every indication of making a "class" dog.

The winner of the All Age stake materialized in Terry's Lady, one of the sweetest little animals ever cast off in field-trial competition. Lady is a small, trimly built orange and white English setter bitch by Champion Count Gladstone IV out of Peach Mark. She was bred by W. W. Van Arsdale and is owned by J. E. Terry, of Sacramento. In her first heat, when she ran as the bye dog, she gave an exhibition of pace range and style coupled with intelligence in searching out likely ground which has rarely, if ever, been equalled in the animals of trials on this coast. Lady's work throughout the race was distinctively high class and stamped her as one of the greatest performers in America. She has now won seven places in trials—of which four were first places, and has only run unplaced once in her career, certainly a remarkable record. It is more than likely that she will go East

W. W. Richards, Photo

HANDLER W. B. COUTS AND "KILGARIF" (SECOND ALL-AGE STAKE).

next season to take the measure of America's cracks and she is certain to distinguish herself if she continues in her present form.

Kilgarif, winner of second in the All-Age, is a large powerful black, white and tan English setter dog by Orion out of Mary Lou and was bred and is owned by J. E. Terry. He lacks the style of his kennel mate and is not quite as fast, but ranges wide and hunts diligently every moment he is in competition. His forte is work on birds, in which he stands out prominently as one of the best dogs in America. In this stake he hardly showed the form of last season when, as the winner of the Derby, he exhibited sensational qualities and won the stake with the greatest ease.

McCloud Boy, winner of third, is a medium sized, compactly built black, white and tan English setter dog by Tony Boy out of Sadie Hopkins. He is owned by W. W. Van Arsdale and was bred by Hugh Hopkins, formerly of Minturn, Cal. MacCloud Boy is in every respect a high class performer and, from present indications, more age and experience will make him a dangerous competitor in any company. He ranges fast and wide, shows nice style in motion and on point and is remarkably decisive in all his work.

Another dog worthy of particular mention is Harry H, owned by C. E. Worden. Harry was unlucky in getting on birds, his opportunities being limited, but aside from this he is a dog of remarkable speed and range, and should he be given opportunities in the East to run on grounds and birds more suitable to a dog of his characteristics is liable to be placed well up in the hottest competition in America.

Count's Mark, winner of the Member's stake is a handsome black, white and tan dog by Count Gladstone IV out of Peach Mark and is owned by W. W. Van Arsdale. Like the other winners of this breeding he shows individuality to a marked degree. He is a very stylish dog, possesses good speed and range and is a clever, snappy performer on birds, making him an ideal gentleman's shooting dog.

Champion Cuba of Kenwood, winner of second in the Member's stake, is a liver and white pointer by Glenbright Jr. out of Stella and is owned by the Stockdale Kennels. Cuba is now about eight years old, but despite his age ran a race which would do credit to him even in his prime. His long experience on birds has given him an insight into their habits which stands him in good stead and this, coupled with a good turn of speed and a keen nose, causes him to run up points where many others would fail to find at all.

Sombra, winner of third has already been described. In this stake she added to her reputation by some clever work on birds and made a well merited win.

The Derby was commenced Monday morning at 9:50 on grounds west of Canfield schoolhouse. The first brace consisted of C. S. Coggin's English setter dog, Sharon Boy, by Tony Boy out of Sport's Destiny, handled by J. E. Lucas and H. W. Keller's English setter bitch Sombra by Llewellin Drake out of Shadow, handled by W. B. Coutts. Sharon Boy ran rather logy. Sombra excelling in pace, range and style as well as in method of hunting out ground. A bevy flushed wild to trees and Sombra commenced to make game followed by Sharon Boy who pointed on foot scent of birds. Worked over an alkali field both dogs lost their scenting powers and were unable to find a few birds scattered out in short range. Sombra showed considerable bird sense and impressed one as being out with an object in view. Down 50 minutes.

The next brace consisting of J. E. Terry's English setter bitch Countess Lou by Count's Mark-Mary Lou, handled by Coutts, and B. J. Bannes' English setter dog Starlight Jr. by Starlight-Rods Sylvia, handled by Lucas, were taken across the road and ran 30 minutes in a field containing a nice bevy located in cover consisting of sage and sunflower weeds. The bevy ran ahead of dogs and flushed wild to trees, a few birds remaining behind. No work on birds in this heat and both puppies showed rather ordinary, Lou being slightly superior to her brace mate.

Stockdale Kennels' pointer dog Cuba's Cottonwood by Cuba of Kenwood-Petronella, handled by R. M. Dodge, and C. S. Coggins' English setter bitch Miss Nelson by Tony Boy-Sport's Destiny, handled by J. E. Lucas, were cast off along a slough bed containing thickets and heavy cover and ran forty-three minutes. Soon after being cast off Cottonwood ran through birds which flushed to trees. Results as to bird work were nil. Both dogs showed fair range and speeed, coupled with nice style.

After lunch a drive was made to grounds about one mile northwest of Canfield's and J. W. Considine's English setter bitch Hick's Bab by Doc Hick-Woodcraft handled by Coutts, and Stockdale Kennels' pointer dog Cuba's Glenwood by Cuba of Kenwood-Petronella handled by Dodge, were cast off in open country. This was a fine brace, both dogs ranging out fast and wide and showing fine style. Bab made the wider casts but Glenwood proved himself a good one. Casting down a swale to the railroad track both dogs gave evidence of the presence of game and crossing over to the adjoining field they roaded up on a bevy, Bab going into the birds. On some of the remaining birds Glen alternately roaded and pointed finally stopping to a stanch stand. He acted nicely to shot and flush following his good work with another point which Bab backed. Bab next had an inning, pointing

W. W. Richards, Photo

W. W. VAN ARSDALE'S "M'CLOUD BOY" (THIRD, ALL-AGE STAKE).

W. W. Richards Photo
W. S. TEVIS' "GLENWOOD" (FIRST, DERBY STAKE).

momentarily and going in to flushes on two occasions. She showed a great deal of quality outside of her rankness when on game and with more development is likely to make a high class performer. Down 38 minutes.

Owing to the absence of Sandlewood his heat with Stars Rod was postponed until the following morning and W. B. Coutts' pointer dog Glenrose by Glendale-Kenwood Rose, handled by Charles Coutts, and W. W. Van Arsdale's English setter bitch Keepsake by California Bell Boy-Peach Blossom, handled by Charles Babcock, were cast off in same field when preceding brace was taken up. This was another good pair, the diminutive setter going like a bullet and the pointer striking a more conservative gait. Keepsake had an advantage in going qualities and style, and crossing the railroad track made a rather undecided point on some birds in a clump of weeds, leaving it. Birds were flushed by spectators. Glenrose next made a staunch point to which three birds were flushed. The dogs were ordered up after running 38 minutes.

The first brace put down Tuesday morning was T. J. Wattron's English setter dog Star's Rod, by Starlight-Rod's Sylvia, handled by Coutts, and C. E. Worden's pointer dog Sandlewood, by Cuba of Kenwood-Petronella, handled by Lucas. These were cast off on grounds well suited to induce the display of high class qualities in the dogs. Both started fast but Sandlewood commenced to trail and continued to do so throughout the heat. Working along a swale with nice cover Rod commenced making game and was just establishing a point on a bevy when Sandlewood passed on ahead and put it up. Both dogs were afforded several opportunities to point on the single birds but no points were made. Rod showed best at all points and promises to make a high class performer when fully developed. He showed fine speed, style and range, hunting to the gun and working out ground intelligently. He should have been carried into the second series.

J. W. Considine's English setter dog Hick's Lad by Doc Hicks-Woodcraft, handled by Coutts, and Stockdale Kennels' pointer bitch Fly's Pearl by Cuba Jr.-Winnepeg Fly, handled by Dodge, were cast off in an open field devoid of cover. Neither dog was very fast but Lad was an exceedingly wide ranger and made wide casts finally winding up with a long one of one-third mile to timber where birds were likely to be found. Pearl was constricted in range and not very fast. She failed to find birds of a bevy which flushed from her direction and did little in the way of meritorious work. Lad seems a brainy sort but was not seen after he made his long cast, hence further judgment is reserved. John Schumacher's English setter bitch

Craig, Photo
W. B. COUTTS AND H. W. KELLER'S "SOMBRA" (DIVIDED THIRD, DERBY STAKE).

W. W. Richards, Photo
W. S. TEVIS' "IVYWOOD" (POINTER), (SECOND, DERBY STAKE), AND JOHN SCHUMACHER'S "VALITA."

Valita, by Cal. Bell Boy-Rod's Lark, handled by Coutts, and Stockdale Kennels' pointer bitch Ivywood by Cuba of Kenwood-Petronella, handled by Dodge, were cast off at 11 o'clock in a swale beside the railroad track. Both showed nice speed when cast off but did not go far before a bevy was flushed and scattered out in good cover. Valita was first to find and snapped to a stylish point, the bird flushing a few moments after. Ivywood now had an inning and made four points one of which was of an undecided character. She false pointed twice and Volita pointed a rabbit by way of diversion. The next brace consisted of W. W. Van Arsdale's English setter dog Klamath by Cal. Bell Boy-Rod's Lark, handled by Babcock, and John Schumacher's pointer dog Frank W by Don Graphic (dam not giveen), handled by Lucas. These were cast off in a field adjoining Gosford's. No sooner had they started when a jack rabbit offered Klamath an insult and during the most of his heat he was a busy dog trying to conect with the "long ears." Aside from his rankness Klamath gives evidence of quality and should he train on is likely to develop

W. W. VAN ARSDALE'S "COUNT'S MARK" (FIRST, MEMBERS' STAKE).

R. M. Dodge, Photo

STOCKDALE KENNELS' "CUBA, JR." (SECOND, MEMBERS' STAKE).

into a dog of the first flight. One bevy of birds was seen in this heat, Klamath going in to a flush. No points were made on the scattered birds. Frank was ordinary in quality and failed to make a good showing.

The last heat of the first series was between Dr. Leonard's pointer dog Wallace Bruce, by Whisper, handled by Lucas, and Alex Hamilton's English setter dog Lady's Lad, by Clipped W.-Lady, handled by Coutts, and after lunch they were cast off in a slough bottom and worked to a bevy of birds which used to live in the vicinity of a cornfield. The birds were driven out into the open, a number of them dropping into cover beside the railroad track. Lad made several undecided points from which birds flushed wild and followed with a couple of staunch stands which proved unproductive. Walace Bruce failed to locate, although he showed good pace and range. Lad was a very stylish going dog and made a very favorable impression. Considering that he was down in the heat of the day and on poor grounds he might have been accorded another chance.

Six dogs were taken into the second series, the first brace called being Sombra and Cuba's Glenwood. They were cast off in heavy cover and worked through the thicket and along the slough bed from which a bevy was seen to run. Glenwood established a point and was steady to shot. He followed this with an undecided point, three birds flushed wild. Sombra next pointed along a ditch in the cornfield and was steady to shot. She then made another nice point. Glen backed her first point in good style and then working along the banks of the slough nailed a bird in short weds and behaved nicely to flush. Sombra then pointed on the opposite bank, Coutts claiming only a point on rabbit although a bird flushed a few moments after Sombra was ordered on. In pace and range Sombra had an advantage over Glenwood and showed herself possessed of considerable bird sense. Her work in this heat was superior to Glen's but his splendid showing in his first heat gave him a good lead over all competitors.

The next brace down was Hick's Bab and Glenrose. Birds were scattered out in corn and the dogs put down among them. Glenrose soon made a nice point on three birds and then both dogs ran over a number of birds which flushed all about them. Bab did not run up to form shown in her first heat and both dogs soon put themselves out of the competition.

Cuba's Ivywood and Keepsake ran the last heat of the Derby. Again the little setter bitch demonstrated that she possessed a great deal of class while Ivywood, although by no means the equal of her brace mate in speed and range, put up a creditable performance on

Retten, Photo

W. W. VAN ARSDALE'S "KLAMATH."

Craig, Photo

ALEX. HAMILTON'S "LADY'S LAD."

CUBA'S "ZEP."

W. S. TEVIS' "MISS MARGARETTE."

W. W. Richards, Photo

A SAMPLE OF THE GROUND COVERED IN TRIALS.

W. W. Richards, Photo

CLINTON E. WORDEN'S "JAY M."

Retten, Photo

HANDLER J. E. LUCAS, WITH "MISS NELSON."

Betten, Photo

MESSRS. H. W. KELLER AND J. W. FLYNN, WITH "SOMBRA" AND "NELLY BANG."

W. W. Richards, Photo

W. W. VAN ARSDALE'S "KEEPSAKE" (DIVIDED THIRD IN DERBY STAKE).

birds and scored four points in short order. Both dogs flushed birds but their showing was a creditable one. Keepsake scored the last point and a few moments later the brace was ordered up and awards announced as follows:

First—Cuba's Glenwood.
Second—Cuba's Ivywood.
Equal third—Sombra, Keepsake.

THE ALL AGE STAKES.

WEDNESDAY MORNING.

C. E. Worden's English setter dog Harry II (Why not-Sue), handled by Coutts, and same owners Pearl's Jingle (Young Jingo-Pearl's Dot), handled by Lucas, were put down in the field where Dr. Daniels and Northern Huntress ran their nice race last season, and competed forty minutes. Harry had a great advantage in speed, range and style, and kept at work every moment he was down, although unlucky in finding birds. Jingle showed well in bird work, scoring three nice points on birds scattered out in low sage cover.

The second brace consisted of W. W. Van Arsdale's English setter dog Detroit Joe (Joe's Count-Queen of Diamonds), handled by Babcock, and C. E. Worden's English setter dog Jay M. (Colonel R.-Spot's Girl), handled by Lucas. The dogs were cast off in the same field where the preceding brace ran their competition, but failed to find scattered birds. Joe confined himself chiefly to rabbit chasing and did not show to advantage in this race. Jay M. is a merry, stylish, little dog, with good speed and range. Down 37 minutes.

J. E. Terry's English setter dog Kilgarif (Orion-Mary Lou), handled by Coutts, and W. W. Van Arsdale's English setter dog Oakley's Pride (Oakley Hill-Gypsy), were the next brace, and both showed to advantage on birds. In speed and range Kilgarif was the best of the pair, and ranged out wide when the nature of the country allowed. Birds were driven to a cornfield, where each dog secured two nice points under trying conditions. Down 30 minutes.

Policy Girl (Dave Earl Top's Queen), a small English setter bitch belonging to J. W. Considine and handled by Lucas, ran with W. W. Van Arsdale's English setter dog McCloud Boy (Tony Boy-Sadie Hopkins), handled by Babcock. The dogs were cast off in an open field with sparse cover, and worked to a stubble field, where McCloud Boy made a splendid find of a bevy. No further work was done on birds, but both dogs hunted diligently, covering a lot of ground, which they worked out in a thorough manner. Boy showed a determined way of going, together with fine speed, range and style. They ran 36 minutes in the heat of the day.

After lunch a drive was made to an open field northwest of Canfield's, and Stockdale Kennel's pointer bitch Margarette (Cuba's Zet-Jingo's Bagpipe), handled by Dodge, and J. W. Flynn's pointer bitch Nelly Bang (Ch. Senator P.-Lady Belle), handled by Coutts, were cast off. Nelly showed best in style and speed, range being equal. Worked across the railroad track, Margarette was first to find, pointing birds of a bevy which were hiding in heavy cover. She followed with two more points. Nelly also distinguished herself by making two stylish stands and two pretty backs. Down 37 minutes.

Stockdale Kennel's pointer dog Cuba's Zep (Cuba of Kenwood-Joaquina), handled by Dodge, and W. W. Van Arsdale's English setter dog Cal. Bell Boy (Tony Boy-Lena Belle), handled by Babcock, ran on the same grounds as preceding brace, and both distinguished themselves by scoring three points. Several false points were charged against them, however, and detracted from their performance. Bell Boy runs with a nice, smooth gait, covering ground fast without seeming exertion. He ranges quite wide and is stylish in his way of going, but is a trifle over-cautious. Zep lacks style and speed, but is a bird finder. Down 43 minutes.

The next brace down was J. W. Considine's English setter bitch Count's Clip (Ch. Lady's Count Gladstone-Jessie Rodfield), handled by Coutts, and Stockdale Kennel's pointer bitch Midget (Cuba Zep-Joaquina), handled by Carlyle. They were cast off half mile west of the Canfield schoolhouse, and worked east to cover,

which birds were known to use. Midget was first to find, scoring a nice point on the bevy. Clip pointed part of the same bevy and then went in to flush. Midget scored several more stylish points and Clip made two indifferent ones, missing a number of opportunities. The speed and range of this brace was about equal, Midget having the advantage in style. Down 34 minutes.

The last brace of the day was Stockdale Kennel's pointer bitch Petronella (Young Jingo-Florida), handled by Dodge, and A. H. Nelson's English setter bitch Sport's Destiny (Marie's Sport-Mark's Fleet), handled by Lucas. Both dogs showed well in speed and range, but Petronella had the advantage in bird work, scoring three points, while Destiny failed to find. Destiny pointed several times, but they proved false.

W. W. Richards, Photo

TRYING TO LOOK PLEASANT.

THURSDAY.

J. W. Considine's English setter bitch Count's Peg (Lady's Count Gladstone-Jessie Rodfield), handled by Lucas, and Stockdale Kennel's pointer dog Cuba, Jr. (Cuba of Kenwood-Florida), handled by Dodge, were cast off in the same field where Harry H. and Pearl's Jingle ran, and were down forty-seven minutes. Peg had the advantage in range, while in speed and style they were about equal. Cuba did all of the bird work, scoring two nice points, which he snaped to in great style.

J. E. Terry's English bitch Lady, by Count Gladstone IV-Peach Mark, ran the bye, and proved the sensational dog of the trials. She started at great speed and ranged extremely wide, taking in every inch of territory over which she ran. Her pace was well sustained to the end of the heat, and her style was well nigh perfection. Opportunities to find birds were very limited, but Lady managed to find one, which she snapped to in great style, proving conclusively that she possesses every quality desired in a high-class field-trial dog. She ran thirty-two minutes.

Eight dogs were taken into the second series, to run as follows:

Harry H. with Jay M.; Kilgarif with McCloud; Bell Boy with Midget; Cuba, Jr., with Lady.

After a bountiful lunch, served by that prince of sportsman and most generous patron of trials, W. S. Tevis, the party drove to grounds northwest of Canfield's where Nelly Bang and Margarette were put down on the preceding day.

Both dogs started fast and ranged wide, hunting out their ground to the best advantage. After quite a run, they were worked to a swale where birds had been driven, and on a little knoll above McCloud Boy stopped to point just as a bird flushed wild ahead of him. Kilgarif, in the swale, now drew on birds which were running ahead of him, and pointed, moving on when he found they were running again. The next time he pointed Coutts flushed and shot, a number of birds taking flight. Moving up a little, Kilgarif pointed a single which flushed wild, and the dogs were then taken across the railroad track, where Kilgarif soon nailed another bird and was steady to shot. Next he flushed a number of birds when urged on by his handler, and then drew a scent of birds, dropping on point as one flushed wild ahead. He refused to move and Coutts coming up flushed several birds. McCloud, meanwhile, had snapped to a stylish point on a single on a bare knoll, and the bird could plainly be dis-

Craig, Photo

A TRIO OF NOTABLES.

W. W. Richards, Photo

LINVILLE'S GORGEOUS MAKEUP

W. W. Richards, Photo

THE "LAIRD O' STOCKDALE'S" HUNTING TRAP.

Craig, Photo

READY TO CAST OFF.

"HARRY II," CLINTON E. WORDEN, OWNER.

W. W. Richards, Photo

AWAITING THEIR TURNS.

cerned running ahead through the sparse cover, taking flight a few moments later. Kilgarif, casting to a knoll about one hundred yards distant, secured another good point, McCloud ending the point work by another find, stiffening out at first, and then standing in an undecided fashion as the birds ran on ahead and flushed. This was a good heat and, considering conditions, both dogs had made a splendid showing, as it was very warm at this time of day. Down 24 minutes.

Bell Boy and Midget were now cast off and worked parallel to the railroad, both showing nice speed and style, while Bell Boy had the advantage in range. Midget, crossing the railroad track, made a stylish point on several birds, and they could be discerned running ahead of her while she held her point as stanch as a rock. Both dogs now made false points, and failed to do anything further in the line of bird work, so were ordered up after running twenty minutes.

The last brace of the day consisted of Lady and Cuba, Jr. They were cast off within a few yards of where Midget and Count's Clip started the day before, and worked along the same course. Lady at once commenced a series of long casts, finishing with one of a half mile or more, Cuba, Jr., also ranging out well. When the field-trial party arrived in the vicinity where Lady was seen to go she was discovered on a bevy point, having located the birds and followed them for at least one hundred yards before Coutts came up and flushed them before her point. This was a splendid piece of work, and won the plaudits of the crowd. On the scattered birds, Cuba, Jr., loomed up well, although honors were about even. Cuba was seen working on foot-scent of the bevy which Lady had located, but was a trifle too late to secure the honors of the find. This was Lady's heat, and she had again demonstrated her ability to run in marvelous form.

Betten, Photo

JUDGE W. S. BELL.

FRIDAY.

Five dogs were ordered out for competition Friday morning, but as the dogs drawn to run the first heat sustained their form of the previous day the other three were not called upon to run. Lady and Kilgarif were put down for a short run, in which they failed to find birds, but showed no deterioration in speed or range. After being down twenty-five minutes, they were ordered out of competition, and the winners announced as follows:

First—Terry's Lady.
Second—Kilgarif.
Third—McCloud Boy.

MEMBERS' STAKE.

The first brace in the Members' stake consisted of H. W. Keller's English setter bitch Sombra (Llewellin Drake-Shadow), handled by owner, and J. W. Flynn's pointer bitch Nelly Bang (Ch. Senator P.-Lady Belle), handled by owner. They were cast off at the edge of timber and worked through a slough bottom, and soon after starting a bevy was flushed by spectators, the birds scattering out ahead of the dogs. Sombra was first to find, and as her handler came up the bird flushed wild ahead of the dog. Nelly next made a stylish point and her handler made a clever kill, although at the time he was not aware of the fact. Sent on, Nelly pointed a rabbit and followed with a point on two birds, which flushed wild as she moved up to locate better. Next she ran over a bird or two, after which the dogs were sent across the road, where Sombra flushed a bird along a ditch and then pointed birds on a knoll above, being a little unsteady. Soon after this a bevy was seen to flush from Nelly's direction. On the scattered birds Sombra secured three nice points, which ended the bird work for this heat. Down 40 minutes.

Owing to the absence of Mr. Tevis with Cuba of Kenwood, the bye dog, Count's Mark (Count Gladstone IV-Peach Mark), owned and handled by W. W. Van Arsdale, was called upon to run pending Mr. Tevis's appearance, and was cast off at 11:35, with Cuba, Jr., as a brace mate.

Count started out with ideas of his own as to how the course should be laid, and Mr. Van Arsdale yielded gracefully and allowed him to have his head until the wire edge was worn off, when Count returned before the gun and was on his good behavior during the rest of the heat. Working along a ditch where birds flushed in the preceding heat had taken refuge, Count flushed several birds, after which he was worked through timber and ran a long time before finding birds. Finally he was seen to cast ahead into a dense growth of weeds, and as the party came up a large

W. W. Richards, Photo

AN INTERESTED SPECTATOR.

Craig, Photo

C. S. COGGINS, WITH "SPORT'S DESTINY."

bevy flushed and scattered along the slough bed. Count was found on point and an outlying bird of the bevy was flushed to his point. On the scattered birds he made two stylish points and showed plenty of quality throughout his work. Up at 12:35, after running one hour in the heat of the day and under adverse conditions, Count showed good speed and range, coupled with fine style and stylish, decisive work on birds.

W. W. Richards, Photo

"OAKLEY PRIDE."

Babcock, Photo

"DETROIT JOE," OWNED BY W. W. VAN ARSDALE.

The last brace of the Members' Stake consisted of C. S. Coggin's English setter bitch Mountain Quail (Charm-Jessie Gladstone III), handled by owner, and Stockdale Kennel's pointer dog Cuba of Kenwood (Glenbergh, Jr.-Stella), handled by W. S. Tevis. The dogs were cast off in the field where Petronella and Sport's Destiny ran. After a short run a bevy was found in nice cover, where they had scattered out upon the approach of the party, and the dogs were soon at work. Cuba was first to find, pointing stanchly in sage, and his handler killed the bird in clever fashion. A few minutes later the old dog found another and again the bird dropped, Cuba retrieving in clever fashion. Mountain Quail now stiffened out to a stylish point, and Cuba backed in good style. Cuba finished the heat by pointing a bird which ran ahead of him and flushed wild. The dogs were ordered up after running thirty-five minutes, Cuba having a decided advantage over his brace mate, which appeared overweight and not inclined to exert herself. The winners were then announced as follows:

W. W. VAN ARSDALE'S "CALIFORNIA BELL BOY."

Betten, Photo

"SHARON BOY" AND "SOMBRA."

W. W. Richards, Photo

"FRANK W."

W. W. Richards, Photo

CLINTON E. WORDEN'S "PEARL'S JINGLE."

First—Count's Mark.
Second—Cuba of Kenwood.
Third—Sombra.

This closed the trials of 1904, the largest and in many respects the most successful and enjoyable meet ever held on this Coast.

Besides the old stagers such as Judge C. N. Post of Sacramento, P. D. Linville of San Francisco, J. M. Kilgarif of San Francisco, J. E. Terry of Sacramento. W. W. Van Arsdale of San Francisco, W. S. Tevis of San Francisco, C. E. Worden of San Francisco, Albert Betz of San Francisco, J. E. Lucas of San Clemente. W. B. Coutts of Kenwood, R. M. Dodge of Bakersfield, C. H. Babcock of Del Rey, C. W. Hibbard of San Francisco, William Dormer of San Francisco, H. L. Betten of Alameda, John H. Schumacher of Los Angeles, H. W. Keller of Santa Monica, John Hauerwass of Los Angeles, W. W. Richards of San Francisco, Frank Mayer of San Francisco, C. S. Coggins of Igerna, J. W. Flynn of San Francisco, J. McDaniels of Paso Robles and H. T. Payne of San Francisco, there was a large attendance of interested sportsmen from all sections of the Coast.

At the annual meeting of the Pacific Coast Field Trial Club, which was held in the parlors of the Southern Hotel, the following officers were re-elected to serve for the ensuing term: W. W. Van Arsdale, president; C. E. Worden, first vice-president; H. W. Keller, second vice-president; Albert Betz, secretary-treasurer; Hon. C. N. Post, W. S. Tevis, J. H. Schumacher, T. J. A. Tiedermann and W. W. Richards, executive committee.

A special vote of thanks was accorded Mr. W. S. Tevis for the many courtesies extended to the club and its members by this most generous patron of trials.

The following new members were elected: C. T. A. Last, Los Angeles; Howard B. Smith, Colton; Floyd S. Judah, James S. Brownell, F. H. Mayer, E. A. Mocker, W. D. Mansfield, L. O. Kellog, Mountford Wilson, and Alexander Hamilton, San Francisco; H. L. Betten, Alameda; A. G. Park, Hanford; J. Sub. Johnson, Visalia; C. J. Berry, Selma; A. C. Cheeseborough, San Francisco; F. Ruhstaher and W. E. Gerber, Sacramento; C. A. Winship, The Palms; and E. D. Roberts, San Bernardino.

ADLETS

Advertisements of subscribers of For Sale, Wants, Exchanges, etc., will be inserted under this head at 15 cents per line for first issue, and 10 cents per line for each issue thereafter. Eight words or fraction thereof measured as a line.

Cash must be sent with order to insure insertion.

FOR SALE — Several high-class English setter bitches of all ages, suitable for breeding or hunting. The strain that wins. California Kennels, Del Rey, Cal.

* * *

FOR SALE—Game Heads, Fur Rugs, at low prices. Prof. Gus Stainsky, Taxidermist of world-wide reputation, Colorado Springs, Colo.

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WANTED—Every sportsman to know that in Montana we have plenty of big game for all. Elk, deer, sheep, bear, and a variety of small game. Can begin hunting second day out. Address A. R. Hague, guide, Findley, Mont.

* * *

FOR SALE—An elegant, thoroughbred, white-and-black, ticked English Setter male Pup, seven months old. George E. Williams, 621 Railroad Avenue, Alameda, Cal.

* * *

IRISH TERRIER—AT STUD—"Bolton Woods Despot." (Imported). Some choice pups by same dog, ex. "Brinscall Droleen," for sale. Grand specimens. Particulars, Ollard, Tacoma.

* * *

KEEP YOUR DOGS in good health. Use Eureka Dog Remedies—chocolate-coated tablets—worms, distemper, etc., 25 cents. Circular on diseases mailed free. Roach Manufacturing Company, 391 Kosciusko street, Brooklyn, N. Y.

* * *

EXCHANGE—Foción Soto U., apartado 106, Bogota, Colombia, postage stamps and picture post cards collector. Exchange desired Send me your duplicates; I will send you same value in Colombian stamps.

* * *

FOR SALE—Litter of evenly marked blue ticked English setter puppies; sired by the Imported Setter Rumney Ranger (Sir Bentinck—Lady Dorothy), dam Alberts Nora (Alberts Duke—Sapho). These puppies are of the best winning blood in England and are good ones; $25 and $35 each. T. P. McConnell, Victoria, B. C.

* * *

MR. GEORGE FLORENCE offers for sale his entire kenel of prize-winning smooth-coated Fox Terriers, including that grand stud and show dog Wandee Revelry (bred by R. Winkinson, England), by Saltsear Gambler-Saltsear Cheerful—a winner of fourteen first in England and America, and one of the best Fox Terriers living. No reasonable offer will be refused for this dog.

Queen, whelped March 1, 1900, by Aldon Artist-Countess. Winner of first and special for best Fox Terrier bitch in show, Spokane, 1903. Price, $25.00.

Victor, whelped July 24, 1902, by Ch. Norfolk Veracity-Norfolk Witchcraft, one of the best-bred terriers living, cost me $148.00 from Norfolk Kennels. Price, for quick sale, $50.00.

Pearl, whelped March 26, 1901, by Norfolk Truman-Aldon Esther. Winnings: Three firsts Winnipeg, first Brandon. Price, $25.00.

* * *

Puppies by Wandee Revelry-Pearl—three dogs and three bitches, seven months old. These are beautiful puppies and will make future prize-winners. Price, $25.00 each.

Address all communications to George Florence, 103 Douglas street, Victoria, B. C.

TRADE TOPICS

THEY'LL BE HARD TO BEAT.

The U. M. C. Southern squad of trap shooters, composed of T. A. Marshal of Illinois (captain), R. O. Heikes of Ohio, C. W. Budd of Iowa, W. H. Heer of Kansas, Colonel J. T. Anthony of North Carolina, and T. E. Hubby of Texas, will make a tour of the Southern States, beginning sometime in January in Arkansas, and working south to the "Sunny South Handicap" at Brenham, Texas, and thence eastward.

This squad will include some of the best trap shots in the country, and it will be noted that the first three men were members of the victorious "All-American Team."

Mr. Heer is a State champion and ranks among the first shots in the country, while Colonel Anthony and Mr. Hubby are well known among Southern trap shooters, not only for their scores but also for their good-fellowship. The squad will be preceded by J. T. Head of Indiana and F. E. Butler of New Jersey, who will make the necessary arrangements with the gun clubs. The purpose of the trip is not to create new records, but to promote trap shooting and become better acquainted with the Southern trap and field shots.

Before leaving, the U. M. C. Company gave these shooters a banquet, and the following were among the prominent shooters present: J. T. Anthony, C. W. Budd, M. E. Hensler, T. A. Marshall, F. E. Butler, Carl Moore, C. Van Inwegwn, J. S. Cole, R. L. Thornton, E. D. Fulford, W. H. Heer, T. E. Hubby, T. C. Riehl, J. W. Elgin, M. F. Sharp, H. W. Heikes, J. G. Heath, R. A. Shearer, S. D. Woodhouse, J. L. Head, R. O. Heikes, J. M. Hughes, C. B. Adams, G. T. Little, L. J. Standish, J. H. Brinley, W. A. Long, and T. D. Priddy.

The menu was printed on shot shell paper.

One of the toasts given is worthy of publication and is a clever play on the names of several of the representatives:

"The U. M. C. Company is the Riehl thing. You all have had many tough Heikes, but mankind Hughes its way to success, and to-night the Budd of glorious promise is shining resplendent in you. We believe it will be a Long time and darn Cole and Sharp when you return to your native Heath, and we don't see Little results to be followed by Moore. Meanwhile, we Head the procession, the Honorable Tom Marshalls our forces, everything is lovely and so we will just smile and look Priddy, and as for Heer (pronounced her) we will let Hubby worry over that."

* * *

A NEW BROOM AND A NEW BRUSH.

An expert in the Washington Patent Office recently said to a correspondent: "Here is a new invention which will revolutionize the present methods of masseurs." It is a brush made of "Siberian hog bristles." Apply this brush to the back of the head or the spinal column, and it affords instant relief to all who suffer from improper circulation or from disorder of any kind traceable to the spine. It is appropriately called "The Spinal Brush." Half our ills are the result of sluggish circulation. This brush causes friction instantaneously; friction accelerates circulation; and circulation means perfect health. The use of this brush supplants the old massage methods of pummeling the body to rawness and rubbing it to soreness in vain

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SPANISH WROUGHT IRON LOCKS

We solicit an inspection of our large and varied stock of SPANISH ANTIQUES.

McCANN, BELCHER & ALLEN, Inc.

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One of BENGUIAT'S Rugs

Mrs. George Gould has in her Louis XVI room an Antique Giordes (Yordes) rug which is believed to be the biggest in the United States. We are the lucky possessors of a larger one which undoubtedly is the biggest of its kind. We will sell it accompanied by a few small Antique Giordes prayer rugs for fifteen thousand dollars, ($15,000.00.) To be shown only by appointment.

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WE CURE CONSUMPTION

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LOCOLITE

We cure bronchitis and catarrh. It cures all diseases of the liver, stomach, kidneys and bladder. It cures cancer, eczema, Lupus, etc. It cures rheumatism, gout, sciatica and valvular disease of the heart. For diseases of women it is peerless. In cases of sleeplessness and nervous diseases it has no equal.

The German Medical Institute

NO. 6 EDDY STREET

ROOMS, 18-19-20 PHONE JOHN 5386

HOURS, 9-11 A. M. 1-4-6-8 P. M.

SUNDAYS BY APPOINTMENT

attempts to restore circulation. Where massage often fails, the Spinal Brush succeeds. The brush is the invention of one who was paralyzed. His physician doubted the man's recovery and stated that if he did recover he would probably be bed-ridden for life. One morning, as his valet was brushing his hair, he requested him to brush the back of his head and then his spine with his brushes instead of as customary with his hands. The effect was startling. For weeks unable to move hand or foot, a few minutes' friction with the brush enabled him to move his feet and hands and to turn on his side. After a few days of such friction, his blood circulated as naturally as ever. He not only recovered, but he got out of bed and went about his business. He was the happiest man on earth. With happiness came thought: "You massaged and rubbed me for five weeks without result," he said to his masseur, "but the moment you applied the brush, my every nerve was revivified." This means all who suffer from spinal troubles, improper circulation, etc., can be relieved as I was, by the proper kind of brush, properly applied. The ordinary hair-brush will not do. *I'll invent a brush particularly adapted for spinal uses;* and the result was the contrivance which physicians at once pronounced a boon to humanity. The Spinal Brush is now deemed as much a necessity as ventilation. *Ventilation keeps the air in circulation; the Spinal Brush keeps the blood in circulation.* This brush gives instant relief to headache face-ache, backache, nervousness, insomnia, neuralgia, rheumatism, lumbago, locomotor ataxia, and kindred troubles. Women, especially, declare the Spinal Brush a wonderful agent in relieving them from the many aches their sex is subject to. With this brush you become your own doctor and masseur. Your own hand, with the Spinal Brush in it, is as good as the doctor's or the professional masseur's.

The Spinal Brush is manufactured and sold by The Spinal Brush Company, 1133 Broadway (St. James Building), New York City.

* * *

THE PETER'S HELPED.

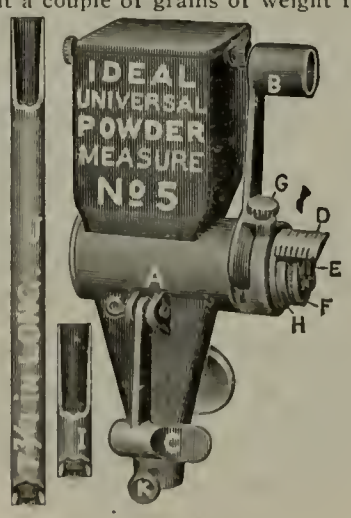
Le Roy Leach of Wood Lake, Neb., has recently eclipsed all of his previous records shooting at thrown objects, and fully demonstrated that he is a skillful artist with the magazine rifle. On November 19, at King's Mills, Ohio, Mr. Leach shot at 1019 shotgun shell heads, thrown at a distance of twenty-five feet, hitting the entire number without a miss. On November 29, on the grounds of the Cincinnati Gun Club, he excelled all known records by hitting 1601 blue rock targets, thrown at a distance of thirty feet. Mr. Leach used Peter's .22 short cartridges, loaded with King's semi-smokeless powder, and a magazine rifle that was not cleaned throughout the entire shooting.

* * *

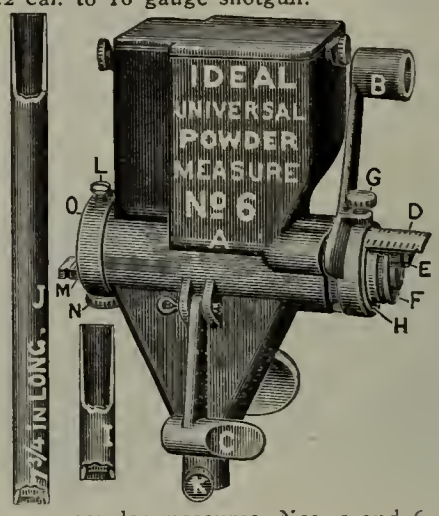
IDEAL IMPROVEMENTS.

Concerning their new improved powder measures, the Ideal Company have this to say:

"There is no such thing as standing still in this busy world of ours. The best of to-day gives way for the better of to-morrow. While we have the best powder measures already on the market, we now offer the shooters something new that is better. The change was brought about by the great variety of smokeless powders, high and low pressure, dense and bulk, some requiring but a couple of grains of weight for a charge,



while others require eight or ten times as much for the same cartridge; the granulations of some powders requiring different depth or size of chamber, for measuring the different charges, including the smallest to the largest charges required, for the various cartridges from .22 cal. to 10 gauge shotgun.



"Our new powder measures, Nos. 5 and 6, meet all requirements; they are Ideal and Universal, measuring all powders and all charges accurately, for rifles, pistols and shotguns.

"No. 5 measure is really four different measures combined in one. The first measuring from 2 to 15 grains, the graduations being one grain each. The second measuring from 10 to 50 grains, the graduations being two grains each. The third measuring from 50 to 140 grains, the graduations being five grains each. The graduations on the fourth are in one-quarter drachms from one-half to five drachms.

"In No. 6 measure the portion on the right side is same as No. 5. On the left side there is an additional measure for small priming charges of different powder, the graduations being from one to ten grains, each graduation being for one grain. These measures have a close-fitting cap or cover fastened with screws. When filled with powder, and graduated slides are all shut and fastened, no powder can escape, however the measure may be carried. If drop tube with the measure is desired for a shell less than .30 caliber, it must be so designated in the order."

Send three two-cent stamps for the latest Ideal Hand Book, full of information to shooters, addressing Ideal Manufacturing Co., New Haven, Conn., U. S. A.

* * *

DU PONT CALENDARS ALL GONE.

The E. I. Du Pont Company ask us to announce that the entire issue of their 1904 calendars has been exhausted. There has been such an enormous demand for these that they will have to refuse any further applications, no matter how much money is inclosed for a calendar.

* * *

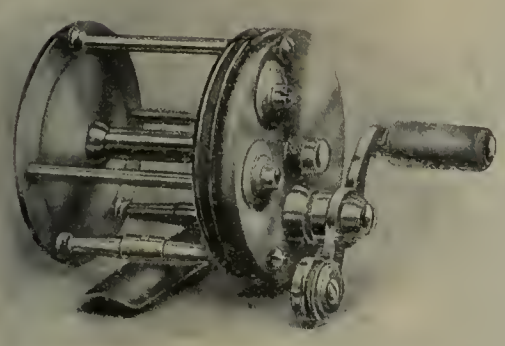
A FINE AND DESIRABLE CALENDAR.

The Marlin 1904 desk calendars much surpass those of previous years in artistic merit. Framed with a rich blue, relieved by white scrolls, is a fine-looking sportsman, with gun, peering through the long grasses for game. In the distance is a bit of nice landscape brightened by the rays of the sun. The colors are beautifully blended, the subject remarkably fitting and attractive, and the framed effect unique. The Marlin Firearms Co. advise us that they will gladly mail this desk calendar to any of our readers who will send a stamp to pay for postage.

* * *

SOME ARTISTIC CALENDARS.

Among the many beautiful 1904 calendars received at this office, that issued by the Savage Arms Company of Utica, N. Y., is particularly worthy of notice. The design is the work of Mr. Carl Rungins, whose paintings of wild animals have established him in the premier rank of American artists. On account of the great initial cost and the heavy demand which has materialized for this calendar, the small charge of ten cents in stamps will be made for copies, an outlay which will be more than reimbursed by this most excellent combination of artist's and printer's work. In ordering kindly address as above, inclosing the stamps as mentioned.



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WARRANTED THE BEST.

Sent on approval—Hence we leave it to you whether perfection has not been reached in the "Talbot."
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"BRISTOL"

STEEL FISHING ROD.

Results: a 26 lb. bass and several smaller ones. Buy a "BRISTOL" Rod for your Florida or California fishing; the Nos. 21 and 22 Rods described in our catalog are made especially for heavy work—a postal will bring you the catalog. Our Rods are sold by all dealers.

Ask for Catalog

The HORTON MFG. CO.,
Bristol, Conn., U. S. A.

HIGHEST AWARD, PARIS, 1900

EVERYTHING FOR HORSEMEN

CONCERNING ALLEGED INFRINGEMENTS.

Of the subject matter of the two announcements herewith appended we have no definite knowledge. They are, therefore, impartially printed by request.

NOTICE.

To Manufacturers, Dealers, Importers, Agents and Users of Our Firearms:

Under the patent laws of the United States any person who *makes* or *sells* or *uses* a patented article, without permission of the owner of the patent, is an infringer.

Among the many patents owned by the Marlin Firearms Co. for features embodied in Marlin firearms are, United States letters patent No. 400,679, No. 434,062 and No. 584,177. These patents are our exclusive property and all responsible manufacturers have for many years respected them. Recently, however, a .22 caliber repeating rifle has been put upon the market by the Savage Arms Company, in which, in the opinion of our experts and counsel, there are certain features of construction, including a take-down feature, which infringe many of the claims of our patents. We have, therefore, instituted in the United States Circuit Court two suits for injunctions and accountings for profits and damages for infringement by the sale of said Savage rifles.

The high standard in the construction, operation, workmanship and material of the Marlin firearms will be maintained, and we shall at all times resist any attempted invasion of our patent rights and protect our customers and users against inferior goods.

THE MARLIN FIREARMS CO.
Mahlon H. Marlin, *President.*

NOTICE.

To Dealers and Users of Savage Arms and Ammunition:

Our attention has been called to a circular issued by the Marlin Firearms Co., with reference to a claim of infringement of patents made against the Savage .22 caliber rifle. It is a significant fact that we have not been sued for the alleged infringement, but suits have been brought against two of our customers in New Haven, Conn. We have already assumed all responsibility of these suits and are able to take care of them and intend to do so. We have the services of able counsel and experts, who assure us that our .22 caliber rifle is not an infringement of the Marlin patents, and, indeed, this must be apparent to all who are familiar with or will take the trouble to compare the Savage and Marlin rifles.

Marlin was not, by any means, the first to produce or make a take-down rifle. Our rifle is not like Marlin's, we are pleased to say.

We assure you that we are able to and will protect all dealers and users of the Savage .22 caliber rifles against all claims of infringement. We shall continue to maintain the high standard of excellence of our arms and rely, as we have heretofore, on the trade and public to recognize real merit. Yours very truly,

SAVAGE ARMS COMPANY.
Arthur W. Savage, *Managing Director.*

* * *

PETER'S PROVE THEIR PRACTICAL VALUE.

At Glen Rock, Pa., December 29, the York County live-bird championship was won by C. E. Humer, who scored 24 out of 25 from the thirty-yard mark. Mr. Humer used Peter's Ideal factory-loaded shells and Schultze powder. Mr. Humer also won high amateur average for the day at targets, scoring over ninety per cent, using Peter's Premier shells loaded with Ballistite.

At York, Pa., December 17, high average was won by Hood Waters of Baltimore. He used Peter's Premier shells, loaded with L. & R. Infallible.

* * *

1904 MODEL INDIANS NOW READY.

Notwithstanding all reports to the contrary, the Hendee Manufacturing Company, Springfield, Mass., will manufacture Indian cycles and motocycles in quantity for the coming year, the line being practically the same as during 1903, with a few minor changes. The finish on these machines will be vastly superior to anything ever turned out previously, and the company anticipates a very prosperous season, both on their regular Indian cycles and Indian motocycles for the coming year. They are now ready to make immediate delivery of 1904 models and have placed themselves in a position whereby they will be able to fill all orders on both lines without delay during the coming year.

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Delivered to any part of the city free
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CALIFORNIA WINES.

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Of course you all expect

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to lead the way in Motocycle

ADVANCEMENT

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Patent Pending

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Latest patent and improved folding canvas boat on the market, puncture proof, tempered steel frame, no bolts to remove. Folds the most compact of any boat made and one that can be knocked down or set up in five minutes, every thing working automatically. Sold on guarantee. Send four cents for Catalogue and reliable testimonials.

Address

Life Saving Folding Canvas Boat Co.

KALAMAZOO, MICH.

The following scientific information regarding Winchester high power small arm ammunition was compiled by William H. Seaver of the local branch of the Winchester Co., and will be of interest to all riflemen:

Name of Cartridge	Twist (One turn in)	Weight of Bullet (Grains)	Muzzle Velocity (Foot seconds)	Muzzle Energy (Foot pounds)	Penetration ⅞ inch Pine boards 15 feet from muzzle	Trajectory 100 yards (Height at 50 yards) (Inches)
6mm U. S. Navy	7½ in.	112	2,500	1,632	60	.76
25-35 Winchester	8 in.	117	1,925	1,008	36	1.32
30 Winchester	12 in.	170	1,885	1,523	35	1.37
30 U. S. Army	10 in.	220	1,960	1,952	58	1.22
32 Winchester Special	16 in.	170	2,000	1,683	37	1.23
303 British	12 in.	215	1,960	1,950	56	1.23
33 Winchester	12 in.	200	2,000	1,876	58	1.21
35 Winchester	12 in.	250	2,150	2,685	59	1.03
405 Winchester	14 in.	300	2,204	3,235	60	2.43

The Bristol Steel Rod calendar, issued by the Horton Manufacturing Company, Bristol, Conn., is a strikingly beautiful example of good composition, drawing and color. The scene depicted is that of a beautiful young woman inspecting her catch—a big black bass—with a most natural and complacent expression of enjoyment and pride at her skill. The complementary Bristol rod, birch bark canoe and general scenic background is very acceptably depicted in good harmonious and yet warm coloring, which makes it very attractive indeed.

A POPULAR LITTLE RIFLE.

The new Savage .22 caliber rifle is the first rifle with the "trombone action" to handle the three lengths of .22 caliber cartridges, and this it does in a most successful manner by the use of a box magazine, which is unquestionably one of the most convenient methods ever employed for quick loading of the .22 caliber rifles. The many strong points that this rifle possesses has led to its exclusive adoption in all shooting galleries on the grounds of the St. Louis World's Fair in 1904, including the most unique shooting gallery ever constructed, to be known as "Hunting in the Ozarks." We learn that the plant of the Savage Arms Company has been running night and day since last June, and to-day are not apace with their orders for this new weapon.

50 YEARS' EXPERIENCE

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USE THE ALWAYS RELIABLE

U.M.C.

TRADE MARK

AMMUNITION

Out of 43 contestants shooting through all the events at the Marysville Blue Rock Tournament, Oct. 11, 1903

37

USED U. M. C. SHELLS

Those used were Acme, Magic, Majestic, Monarch.

Out of 37 contestants, shooting through all the events at the Helvetia Rifle Club (Sacramento) Tournament, Oct. 18 and 19, 1903

27

USED U. M. C. CARTRIDGES AND PRIMERS

The cartridges used were 32-40 and 38-55.

UNION METALLIC CARTRIDGE COMPANY

PACIFIC COAST DEPOT

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Black Sporting
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Ask your Dealer for Cartridges loaded with DuPont

Geo. Gignac Photo

KETTLE LAKE, OREGON

WESTERN FIELD.

VOL. 4. MARCH, 1904. NO. 2.

WHEN BEARS WERE PLENTIFUL.

By L. R. ANDREWS.

"WHEN I undertook to raise sheep in Kern County," said the argonaut who had tried his hand successfully at mining, storekeeping, railroad building and other pursuits in the Golden State, "I knew no more about the business than a hog does about war, as my pardner used to say. I invested considerable capital in a bunch of sheep in the spring of the year and started to drive them up into the mountains for pasturage, intending to herd them myself. If I had known what hardships lay before me it is probable that I should have hesitated before tackling such a tough proposition, although I have never allowed any prospects of grief to discourage me.

"At that time about all the land in that section of the State was owned by the Government and by the railroad, which had been granted millions of acres as subsidy for constructing the road. Many squatters had located on the choice spots and claimed rights to all the pasturage in sight. I did not know this, and when some irate rancher came out and roughly ordered me to drive on without allowing my sheep to feed by the wayside, I hastened to comply.

"However, I soon learned the facts in the case and paid no attention to these gentry. I had several good sheep dogs and a little burro on which was packed my blankets, camp outfit and supplies. Finally, I reached a promising spot in a pretty valley through which ran a fine stream of water. The pasturage was good and plenty of it, and my flocks were not long in finding it out.

"In tramping about the valley I discovered another herder had preceded me, locating further up in the foothills, and as he proved to be congenial I was glad to have his company. We chummed together and I learned a great deal about my new business from him. Our worst enemies were bears, with which the mountains were infested. There were cinnamon bears, brown bears and black bears. We came across grizzly tracks several times but never had the pleasure of meeting one of these ferocious animals. A grizzly is always ugly and is willing to meet you, afoot or horseback, more than half way. He carries a chip on his shoulder and is spoiling for a scrap all the time.

"My first experience with bruin occurred one day when Jack Adams, my neighbor, and myself were out prospecting for new pasturage. We left our flocks in care of the dogs, knowing that wild animals do not molest sheep during the day. I had a Winchester repeating rifle, while Adams was unarmed except for a large knife. We pushed on further into the foothills, clambering over the rocks and forcing our way through the underbrush.

Presently we emerged into a beautiful valley, somewhat larger than the one in which we were located, and decided there was no necessity for seeking further. As we surveyed the landscape I noticed two deer feeding near the foothills on the opposite side, probably a mile away. We were to windward of them and it was necessary for me to make a wide detour in order to approach within rifle range.

"I started around the head of the valley, being careful to keep under cover, while Adams remained on the spot where we had first sighted the game in order that he might

"WE EMERGED INTO A BEAUTIFUL VALLEY."

drive the animals toward me if my approach from the opposite side should frighten them.

"With great caution I made my way through the underbrush, keeping my eyes on the deer, when suddenly a 'Weugh!' like the grunt of a startled hog, gave me about the worst start I ever had. Turning quickly, I saw what, to my excited vision, looked like a half grown elephant trotting diagonally away from my course. It was an immense bear, which I had disturbed in its siesta at the foot of a tree.

"He was within easy range and presented a fine shot, but I hesitated a moment, for my mind was full of deer and I knew if I fired at the bear I should scare the game out of range. On second thoughts I recalled that the marauder before me could cause more damage to my flocks than the meat of a dozen deer would equal, so raising my rifle, I covered bruin just as he reached the foot of a rocky knoll. He half stopped and turned his head toward me, and I took quick aim at the little white tuft of fur under his throat. My nerves were strangely steady for my first bear.

"Down he went at the crack of my gun, to my great astonishment, as his size led me to believe that he would be hard to kill. I approached him cautiously, not wishing to take too many chances with such a powerful antagonist. Adams ran directly across the valley on hearing my shot, which had frightened the deer into a swift break for cover. 'It's a grizzly, sure!' he exclaimed, deceived by the great size of the animal. 'Give him one in the ribs to make sure of him,' he continued and I did so, but the second shot was unnecessary for the first bullet had done the business.

"He proved to be a cinnamon bear in very poor condition, having just emerged from his winter's hibernation. His hide was too poor to save and, congratulating ourselves that we had dispatched a dangerous enemy, we retraced our steps to the valley, which we recrossed on our way to camp. En route we came upon the carcass of a cow evidently

recently killed, and bear tracks were numerous all around it.

"'We will have plenty of company when we get our sheep up here, Jack,' I remarked.

"'I'll show you a trick or two with bears,' he replied.

"Reaching camp we found everything in good shape and proceeded to pack up in readiness to start for the new pasturage in the morning. We had no difficulty in driving the sheep into Bear Valley, as we termed our new location, and separated our flocks as before.

"Jack had a wicked-looking, sawed-off, double-barrelled shotgun of large bore, with a steel stock having a projecting clip, by means of which the weapon could be fastened to a tree or a stake. He loaded the gun with heavy charges of powder and put six big buckshot into each barrel. Then, driving a stout stake into the ground near the dead cow, he lashed the gun firmly to it, pointed directly in line with the carcass. Next he tied a stout string to the triggers and led it behind the stock of the gun and then directly forward across the carcass and made it fast to another stake which he drove in the ground. Then he cocked both hammers and remarked that we would hear somethiug drop during the night.

"We built fires and sat talking until about ten o'clock, when we turned in under our blankets on the thick carpet of grass. Two o'clock in the morning seems to be the fashionable meal time for wild animals, and it was just at that hour the following morning when we were awakened by the roar of the sawed-off weapon. We listened for sounds of a struggle but nothing reached our ears.

"'Let's go and see what we got,' exclaimed Jack, so we dressed and walked over to the spring gun. Lying with its head upon the carcass of the cow was a large brown bear, stone dead. He was very poor also, but for all that it required our united strength to haul him away from the dead cow in order to set our trap again. No other animal disturbed it that night and we let the hammers down during the day to prevent injury to our dogs or sheep.

"The following night we were awakened at about the same hour by a report of the gun which did not sound so loud and we found on investigation that only one barrel had been discharged, but that was sufficient to put a little black bear to sleep. 'If we keep it up at that lick we'll soon clean the varmints out of Kern County,' chuckled Jack.

"'We can't do it too soon,' I replied. 'We have lost a sheep every other night as regular as clockwork,' which was a fact, for the sly freebooters helped themselves to the fat ewes without paying the least attention to us.

"The following night we got another brown bear, and for each of six nights in succession from the setting of the spring gun we rid the valley of a bear. After that we had peace for a time, but there were other enemies to contend with. One day I noticed a fine young sheep leave the flock and walk toward me with a staggering gait.

"Thinking it must be sick I began to wonder what form of treatment I should undertake to relieve it. The animal approached close to me, which is very unusual for sheep to do, and dropped on the ground where it lay suffering intensely. I went up to it and found one of its hind legs swollen to twice its natural size. Examining the limb closely I discovered two ugly punctures near the ankle where it had been bitten by a rattler.

"Fortunately I was prepared for such emergencies, having learned the trick from Adams, and we invariably carried a bottle of ammonia with us. If the fangs do not penetrate a large vein, permitting the poison to reach the heart immediately, this remedy will always save the life of the victim.

"Opening my knife I hastily made a number of punctures along the inner side of the swollen leg and applied some of the ammonia to the cuts, from which a greenish water exuded immediately. Inside of an hour the sheep got up and went on feeding as if nothing had happened to it.

"In another valley lying parallel with ours was a stock ranch run by an old German and his wife, who had established themselves there many years before. The old lady made butter once a week and this luxury we allowed ourselves. I started out with a pail one evening about dusk to replenish our larder with fresh butter, and it was quite dark when I left the stock ranch for home.

"There was a well-defined trail part of the distance, over which I walked. It had been

"A LARGE BROWN BEAR, STONE DEAD."

made by wild animals going to the creek for water. I was unarmed and proceeded carelessly, unsuspicious of danger, when an ugly '*Woof!*' from an immense animal in my path, not twenty feet away, threw a scare in me that raised my sombrero. Apparently the bear—for such it was—had as much fear of me as I had of it, for the critter turned and crashed through the underbrush for a short distance, when he stopped and regarded me. I puckered up my lips and tried to whistle unconcernedly as I proceeded, meanwhile keeping a wary eye behind me. The bear did not molest me, for every wild animal except the grizzly will avoid a conflict with man unless it is cornered.

"I reached camp safely and told Jack my experience. 'We'll fix his business to-morrow,' exclaimed Adams. The following day we took the spring gun and fastened it to a sapling, pointing the muzzle directly across the path. Then stretching the string over the trail we cocked both barrels and returned to camp.

"About two o'clock next morning the roar of the gun awakened us, but we decided to wait until morning before investigating. When we reached the gun there was no animal in sight, but on examining the trail we found where the sly brute had approached the trap from the direction of the stock ranch, and either sighting or smelling the string, he had turned and walked carefully around the stake to which the string was fastened. Then, after proceeding down the trail some distance he had changed his mind and doubled on his tracks, this time walking into the string, drawing the deadly charges into himself.

"As wounded animals invariably make for water, we headed down toward the creek, and presently found his trail plainly marked with spatters of blood. He had crossed the stream and made his way up a rise on the further bank, and stretching himself beside a fallen tree had lain down to die. He was a big black fellow and his fur was in very fair condition so we skinned him, but all we realized for our trouble was four bits when we sold the pelt at a trader's store some time later. The fall of the year is the proper time to kill bears for their skins as they are then fat and the fur is soft and thick. Bears are fond of clover and will eat it as readily as do cattle or sheep.

"I was passing through a stretch of woods one day when suddenly I came upon two deer feeding in a little glade some distance ahead. I had my rifle with me and crept up, hoping to get a shot, when suddenly they both picked up their heels and vamosed—pronto! I stood still a moment, wondering what had scared them, when I heard a terrible scratching or clawing sound ahead of me.

"Walking slowly along, I saw a large black bear doing a series of physical culture stunts. He would spring at the trunk of a large pine tree, scramble up for twenty feet or so and scratch the tree with all four feet until the bark flew in showers. Then he would turn and scuttle down to the ground, take another run for the tree and repeat the performance. Thinks I, 'Old fellow, you feel pretty frisky and if I miss you or only wound you there's a chance for a scrap,' so I waited for a good chance, trying to get the drop on his eye.

"He was so lively in his movements that I could not get a bead on him; suddenly he spied me as he clung to the trunk of the tree, twenty feet from the ground. Without hesitation he sprang from that height to the ground and ran around the tree. I let fly at him and struck him a glancing blow on the side of the head. A bear's skull is very thick and pointed, so that it is almost impossible to kill one by shooting in the head.

"With a howl of pain bruin redoubled his speed, with me after him, plugging at him every chance I got to shoot. I must have hit him again, for he began to slack up and headed for a pile of rocks, up which he climbed and disappeared. I clambered up after him and when I reached the top of the ridge I saw him sitting within easy range licking a wound in his side. I took good aim and tumbled him over with one more shot.

"By this time I had begun to think I was pretty much of a hunter and felt equal to tackling a bear at any time or place. When you look for bears you generally find them, and I had been having intimate relations with bruin for some time. In a country where they were so plentiful it was no trick to scare up a bear whenever you wanted one.

"I took a tramp with my rifle one afternoon through a belt of woods, hoping to get some fresh meat for supper. After proceeding some distance without sighting any game I came suddenly upon a big black mother bear playing with her two cubs. They were having a royal time and I felt ashamed to intrude upon their sport, but I reflected that I was furnishing fresh mutton for the support of that family and I had to go hunt fresh meat for my own table, so I cautiously approached in order to get near enough for a shot.

"The mother bear spied me and giving her cubs each a swift cuff she turned tail and disappeared over a ridge. The cubs climbed a tree spry as cats and stretched themselves out on a large limb, from which they watched me with their little beady eyes. Knowing that the mother would return I got up on a large rock and laid down where I could cover the approach to the tree. Two hours passed and no bear showed up. It was an unusual thing for a mother to desert her cubs as this one had done. At last I determined to kill the cubs, for while I disliked very much to do so, I knew that it was dollars out of my pocket to let them live.

"The first one I shot through the head and he dropped like a sack of meal. I could not get a good sight on his brother and the bullet broke its back. The poor little fellow came down kerplunk and set up the most piteous wail I have ever heard before or since. I realized that I was in a dangerous place if the mother of the cubs was within hearing distance, and raised my rifle to silence the little fellow's cries and put him out of his misery.

"At this juncture a black whirlwind blew into the clearing and in a minute Mrs. Bear and I were mixing it up. At least Mrs. Bear was mixing me up. I don't know whether she approached me on all fours, standing up, or whether she flew through the air, but

I went down under her with a rush, bumping my head terribly on a projecting root. The momentum of the furious beast carried her a few steps beyond me and I jumped to my feet, intending to grab my rifle, which lay a dozen feet away, but the maddened brute was too quick for me. Again she approached me, rising to her hind feet this time and waddling swiftly toward me with forepaws going like a prize-fighter's fists.

"Things didn't look very favorable for me then, and I wished I had not built up such a reputation as a bear slayer. I had no knife or other weapon and there was no chance to escape by flight. I don't suppose I shall ever forget the ugly look on that critter's face if I live a thousand years, for it was photographed indelibly on my brain.

"She was within three paces of me when suddenly the cub with the broken back, which had been dragging itself around by its forelegs, managed to cross the path of its enraged mother. That was all that saved me, for the mother's instincts overcame her murderous passion and she dropped down to lick her wounded offspring. Quickly I jumped for my rifle and taking quick aim I plugged the old girl in the eye. She spun around several times like a whirling dervish, gave a long howl of agony and fell across her cub, stone dead."

THE TRAPPER.

THE veil of white comes down at night,
And the forest grows dark and drear,
Where the traps are set in the far greenwood
For the fox and the wand'ring bear.

And standing there, on that eve so drear,
A trapper swings his gun
To his shoulder broad, for, as darkness falls,
His short day's work is done.

He marks the snow through the spruces blow
And settle upon the feasts
Of raw, red flesh, with the blood-scent fresh,
That he'd spread to tempt the beasts.

And pleased he smiles, though the night is wild,
And his cabin far away
By a frozen stream that sweeps along
To the shores of Hudson Bay.

For his good skill will be furthered still
When the work of his crafty hand
Is screened 'neath the cover of sheeted white
Which masks all the northern land.

He turns at last, for the shricking blast
Roars loud through the tossing gums,
And all the forest re-echoes with
The rattle of storm king's drums.

He hums a song as he swings along,
A song of the long ago,
But it dies away as the night wears on,
And his footsteps drag more slow.

Clear on his sight rolls the drift of white,
And his heart grows sick with fear,
As he thinks of his rough-hewn cabin home
And the loved ones waiting there.

Soon paths are lost, for the snow is tossed
Above the dim trail below,
And the furious gusts drive through the air,
Hurling white flakes high and low.

His blood grows chill and his iron will
Bends as his veins congeal,
And he feels the breath of a languorous death
Through all his senses steal.

He feels no pain, and he smiles again
Ere his soul is called away,
But he thinks no more of the old log hut
Where his daughter kneels to pray.

The storm sweeps by, and the midnight sky,
Star-studded, above is seen,
While the dying wind soughs mournfully
Through the year-long evergreen.

Down comes the blight of the Arctic night
Upon the world below;
Down come the elves of the northern light,
To dance upon the snow.

Beneath the rift of a long white drift
The trapper lies still and dead,
And the ripened cones fall all about
From the gray limbs overhead.

The wolf's sharp cry, from the thick brush by,
Breaks heedless on his ear;
He does not see, through the wide-drawn orbs,
Its shadow swinging near.

* * * * *

The cot grows old, and, covered with mold,
The timbers rot and fall,
And the rain blows in through the gaping roof
In league with the wanton squall.

—*F. M. Kelly.*

THE STICKEEN RIVER COUNTRY

By C. F. MULLINS.

PART II.

OUR camp was on the Kenecott Lake near the Little Tahltan River. I find I have forgotten to mention an important matter that occurred before starting. We met Mr. Calbreath, who told us he thought we were making a mistake taking Dennis and Larry together; that Larry was *persona non grata* with all the Tahltan Indians; that Ned and Dennis hunted together, and we had better have Ned along. As a horse rustler was included with the horses, we decided to have it arranged that he was so employed, and through Mr. Hyland's assistance, it was managed.

Calbreath said his father was a very old settler in that country and knew all about Indian and tribal laws. Now, our men consisted of two Crow Indians, and one of the Wolf tribe, and the Crows and Wolves always intermarry; each head of a family has his own hunting ground or right called *illihee*. This is owned by the woman, and when a man married he used that *illihee* which had its marks and boundaries known to themselves, and although Canadian laws allow an Indian to hunt where he pleases (and a white man, too, when he has obtained the proper license), yet an Indian hunting or taking a white man to hunt on another's *illihee* would have to account for it at the annual *potlatch* and settle up the same as if a farmer had taken stock off another man's farm. Larry had married out of his tribe, taking a Wrangel woman who was not a Tahltan Indian, and had no *illihee* or hunting rights, and therefore Larry was a trespasser wherever he hunted, according to Indian law. We got Dennis and Larry together and told them what we had heard, and they both said there was nothing in it, so we went ahead; but later events satisfied me there is a good deal in it.

With a late start next morning we got no further than the abandoned Hudson Bay post at Sheslay River. The Telegraph Company have two linemen there, Craig and Johnson, who keep the line in repair for some fifty-eight miles. Light rain most of the day. Hamilton caught a rainbow trout. I think they are feeding on salmon spawn as the river is full of salmon. We passed two large caches in which were buried the remains of cremated Indians; one of them had a rough wooden cross painted with Indian colors; there being no light to photograph it, we hoped to get it coming back, but the same conditions obtained. The linemen at Sheslay were, fortunately for us, able to telegraph, so we were able to wire our friends in San Francisco, and also to have messages repeated from Telegraph Creek. One of the linemen started for Telegraph next morning with two dogs lightly packed. I noticed that he had no blankets, and as it would take him at least two days getting in I commented on it; he told me he had some cached on the line of the road each way to save him packing when called out. A stranger would think this risky, so the sacredness of the cache (hiding place) may as well be commented on here as any other place.

Mr. Andrew J. Stone, connected with the New York Zoological Society and the American Museum of Natural History, New

"OUR CAMP IN THE CARIBOU COUNTRY."

York, has hunted in this country (with our man Dennis) and he told Mr. Bronson of Wrangel, that he was shown a cliff over which any Indian convicted of breaking a cache was thrown to his certain death. Another illustration of the sanctity of a cache can be given. A very few years ago a white man, hunting, had in his employ an Indian and a "squaw-man" and his wife. They made a cache some miles below Fort Liard and later had occasion to visit it, and when nearing saw the tracks of a party of renegade Indians; his party refused to go any further, but he persuaded the squaw-man and his wife to go on, the Indian would not; when they got to the cache the Indians wanted it opened; the white man would not do it. In the morning he was alone with the renegades, the squaw-man and his wife having lit out in the night. All sorts of threats were used against the white man to make him open up the cache, but he would not do it. He knew they could gain nothing by killing him with the cache closed, but if he opened it its sacredness was gone, and he would have been killed for its contents, and he got away without opening it; returning later with other Indians the cache was still untouched. The cache of an Indian belonging to the same tribe may be opened in great emergency, and enough taken for saving life in case of threatened starvation, but a notched stick indicating what had been taken, and who by, is left, and at the annual *potlatch*, the man opening must justify himself and pay heavily for doing it.

From what we learned, we were in too early, as moose would not be running yet, and to get them under other conditions would be difficult and doubtful; the caribou, also, would hardly be down in any number from the North yet, so after a council of war we decided to try the sheep country first for big horn, and left part of our supplies, and traveled as light as possible that we might make time, looking forward to a rough trip in the mountains and a wet one in the brush at the lower part of them, on account of the last night's rain. We had to cross the Sheslay River, and just managed it without wetting the packs. The men got on top of them and looked like camel drivers; we had to get our feet on the horses' backs to keep them dry. Had there been another foot of water we should have had to swim the horses and build a raft to take supplies over. It took all day getting on top of the mountain, there being no government trail now and hard going; we made camp above timber level, and saw the first ptarmigan to-day; also some moose tracks. We got some more grouse, shooting their heads off with a rifle so as not to spoil meat, our shot gun being left behind at Sheslay. It was very cold and we had to eat everything separately as it came off the fire, and although we did it fast to prevent it getting cold before getting to our mouths, we did not succeed. At six o'clock the water bucket was frozen over; the night was very cold; the tent, damp from rains when put up, was frozen stiff and our breath congealed on our blankets.

Starting early, morning very cold, we traveled most of the day over a flat mountain about thirteen miles, seeing some ptarmigan en route; a hawk had three so badly scared that we killed them all with rocks, and the hawk tried to secure one of the wounded ones not over twenty feet away from us; they are now turning white, their winter color. We saw, also, some ground hogs (marmots), which the Indians shot at, we having no use for them. At one o'clock we camped and had lunch; scrutinizing the snow-covered peaks all around,

we saw no game except some goats in a direction that, owing to a big cañon between, would take a full day to reach. Hamilton went out with Larry, and I went with Dennis to prospect for to-morrow's hunting, going in different directions as we make a practice of hunting separately so as to cover double the ground.

When about time to think about getting back to camp, we saw something likely looking about a mile away and up the mountain. The glasses showed it to be a good-sized mountain sheep, a ram worthy of stalking but which evidently had also seen, and was watching us. We remained crouching and almost statuesque for ten minutes or so, when he would start feeding only to instantly put up his head and watch us again. Finally he seemed satisfied and went to feeding. On our toes and elbows, a means of locomotion known to stalkers in low brush, we covered the ground to where there was a slight rise so that we could stand up and stretch our cramped limbs, then began eighty minutes' hard stalking just to get the wind of him and near enough for a shot. It was a long climb; leaning against Dennis in places where there was danger of being seen, in a manner that in the distance made us look like some quadruped, at other places crawling, crouching, and when safe to do so walking. Dennis, with his moccasins, jumped from rock to rock, silent as a cat and almost as quick, I doing the best I could; but with sixty pounds more weight, and thirty years additional age, I did not make a good second.

It was up, up and still upwards, and I began to feel my limit of endurance was reached. My heart was thumping and my breath so short that my legs began to wabble about and stagger, and use all the care I could I was making too much noise on the rocks; to lighten myself, hat, coat, vest and field glasses had been scattered on the way up, but fortunately the wind was strong as well as favorable so that the ram did not hear. At last I insisted (by motions), on a little rest, and asked Dennis how much farther; he said "about 800 yards." I gave him my rifle to carry, and, relieved of that, made another spurt, and when getting close up went on only a few

ALASKAN PTARMIGAN.

AN ALASKAN SHEEP.

yards at a time as it would have been useless to try a shot when pumping for wind; when we got to the ridge I rested a couple of minutes. On peeping over I saw the top of his horns about forty yards away, below us, the pitch of the mountain being very sharp. He saw us and at once was bounding down the side. All I saw was his white rump (chrysanthemum) straight away down the sharp incline. I first over shot, then under shot, then broke a leg; as he reached a straight up and down place in front of a small glacier or rather ice field, he hesitated and turned to run down the side. This gave me his broadside and I dropped him next shot at about 150 yards. He rolled over the bluff and we found him dead when we got there. I did not want to run the chance of a bear spoiling the head during the night so took it and the scalp back to camp, leaving the meat safely refrigerating to bring in next day. Horns 14¾ inches at butt, 31 inches long. Hamilton had not seen anything.

The sheep at this section are known as *Ovis Stonei*, so named after Andrew J. Stone who brought out the first specimen known to science three or four years ago. Generally speaking, it is the same as other Rocky Mountain sheep, but has differences sufficient for science to classify it separately. The country we hunted in, according to the Dominion Map of '98, is unsurveyed. It is about twenty-five miles in an air line southeast of Egnelle Mountain, and is marked "Glaciers." Not caring to kill another, I let Hamilton have both our guides in the hope of increasing his chances. The horse rustler went along and brought back the sheep meat. Larry carried Hamilton's new .35 Winchester, he not wanting the job over the mountains all day. He saw nothing until nearly four o'clock when they saw two sheep coming over a ridge; ewes, lambs, and a couple of small rams kept coming until they counted twenty. The wind favoring they stalked until within 400 yards when the sheep crossed a small ridge. The party followed up, Dennis leading. He looked over and beckoned Hamilton to come up and when he did so he was close enough to throw his rifle into the bunch but could not pick out one good enough to shoot; on their scattering he chose the best one and knocked it over at 300 yards with three bullets in it. Hamilton got back after dark, having had a very hard day of it, the last hour in the dark with a stream to wade, against cold wind and a light fall of snow.

Hamilton's luck not coming his way I again let him have both guides next day, going out for a few hours with the horse rustler toward the cañon, said to be a good bear country, but saw nothing. The smell of smoke from our camp fire had likely sent them off. Just after breakfast a large eagle lit on a rock close to camp, but a move for a rifle sent it away. I measured the distance, just twenty-four paces. Hamilton, Dennis and Larry started off on horses. It took them one and one half hours to get to the bottom of the cañon and until 1:30 p. m. to get to the foot of the glacier, up the cañon where they lunched. They trailed for two hours some fresh tracks leading across a small stream, and as it was then getting late Dennis climbed the mountain to see if he could spot them. He had been gone half an hour when Larry pointed out three; they must have seen Dennis. One came down the mountain toward Hamilton and he and Larry dropped behind a rock; the ram kept coming down until it was within seventy yards where Hamilton killed it at the first shot with the Winchester .35, the bullet going through behind the shoulder. The other two ran around side of mountain.

Hamilton crossed the river and climbed for a half hour, and found Dennis was ahead; the sheep had seen them and were away,

over a mile up the mountain against the skyline, so he gave them up and was starting down to scalp the other and come back to camp when Larry saw four on the opposite side. Hamilton and Dennis climbed down and forded the river again and got within 300 yards when Larry motioned that they were going up the mountain, so Hamilton ran out and fired at the biggest, getting in one shot but not stopping him; he continued shooting and finally dropped him; the ram was not quite dead when they reached him so he fired a final shot and grabbed his horns to keep him from falling over the sharp precipice. He had both hind legs broken—probably by last shot—and was hit four times in body. This was a beautiful head: 15 inches butt, 35 inches length, curling in well and holding size quite a distance from the butt. The other was fair size, thirteen-inch butt.

By this time it was dark. I kept a flare going to light them home; for a long time they saw it occasionally, but it looked like a star they said, rising over the mountain. It was 11:30 p. m. when they got home, cold and wet, hunger having ceased for a while. The climb up the cañon with the horses, which they had to lead over rocks and small fallen timber in the bottom part, made it, so Hamilton says, the hardest day he ever knew, and bed never felt so good. They had a little moon for the last hour. It commenced snowing a little after Hamilton reached camp and kept it up all night.

While siting round the camp fire waiting for Hamilton's return, we heard the call of an owl, and Ned jumped up and with great earnestness asked us to be quiet as he wanted to hear what the owl was saying. After a while I asked him jokingly what he was talking about, and he said the owl spoke some of the same words as their tribe, and that he said "you go away, I want you to stop and cry with me." Ned did not speak English well enough for me to ascertain whether he believed in the transmigration of souls, but I think he did not, as a little later he seemed to get angry at the owl's talk and said if the shot gun had not been left at Sheslay he would go down the mountain and kill it. We joked Ned about the owl talk often, but he believed in its talking part of their language all right.

Cleaning scalps and heads in the early part of morning, then hunting two of the pack horses that had strayed, made it 3 p. m. before we got started, but we insisted on making enough distance to get back to Sheslay River the next day. Between wind and snow it was a cold day; we made about ten miles and camped. It was very cold during the night, and my underclothes lying in pocket of tents were all frosted, and the tent frozen stiff. After three hours on the flat mountain again the next morning, facing a strong wind so cold that we had to bind our heads and faces in handkerchiefs, it was cheerful to reach the timber line and get into some shelter. By the time we got down to the Sheslay River the sun was out and it was pleasant. For the first time in a week we had a chance to air our blankets. Hamilton and I peeled off and got in the creek for a bath, the Indians giving us a look that settled our sanity as far as they were concerned. Then we took on supplies we had left behind, and re-arranged pack for an early start.

Up at 4:30, raining hard, we hit the trail. Indians do not like such vigorous proceedings, but up the Egnelle Mountain trail we went, camping some 3,000 feet higher at "Ketchum" Lake—so called because in early days the Indians had a very long fence (some miles) and used to drive the caribou there where they had snares which entangled their horns. At the other end of the snare was a log which soon fastened the

RETURNING FROM THE SHEEP COUNTRY.

caribou until the Indians got them. At last night's camp many of the Indians who had left Telegraph and Tahltan village had arrived and they were progressing with their salmon catching and drying.

We left the Teslin trail early next morning for "Level Mountain" which is twenty to forty miles wide, and not explored back further than seventy miles or thereabouts. It is only level by comparison with surrounding peaks; its hills, valleys, cañons, streams and so forth, are covered with bunch grass and willows two to ten feet high. It is full of bogs, marshes, swamps and tundra, and would geologically be called a basaltic plateau, but when you or your horse, and sometimes both, get mired every now and then, another name can readily be found for it. Hamilton hunted with Larry and Dennis went with me. Just as the light was failing Dennis saw a caribou with the glasses, and off we started, racing the sunset, forcing our way through a bad marsh to find only tracks of the caribou. It got too dark to follow him up, so we went back over the marsh in the dark to camp. The weather this day was very pleasant.

Here it might be appropriate to say a word about the Teslin trail and its origin. In '97 the first rush to the Klondike occurred via Skaguay and White Pass, Dyea and Chilcoot Pass on by Lake Bennett, White Horse Rapids and Yukon River to Dawson. The '98 rush went in part that way, but many started up the Stickeen to Telegraph Creek and Glenora, and struck the trail for Teslin Lake; then about 100 miles on the lake down the Hootalingua River which runs into the Yukon, fifty miles below the White Horse Rapids. Another party left Edmonton on the Canadian Pacific to strike Teslin Lake and so on to Dawson, the object being to avoid the White or Chilcoot Pass and the White Horse Rapids. At that time there was no trail, but in the summer the Dominion Government built one from Telegraph to Teslin Lake; over some seventy miles of this trail we traveled. The pioneers starting with their packs of grub, blankets and so forth, had to cut their way through and cross swamps and marshes, tundra, rivers and other troubles, which became very numerous and serious.

Some fifteen miles out, and for the next fifteen miles, the trail carries its own evidence of the fight that was made to get through; the abandoned pack saddles, one wheel and two wheel rigs (narrow) of every kind that ingenuity could devise, solid wheels, rough flat spoked wheels, strap iron tires, gas pipes for axles and wooden axles; in a few cases there was evidence of a horse being used between improvised shafts, but the large majority were one wheel in the center and a man at each end, one pushing, one pulling. A derelict wheelbarrow was there and it dimmed your eyes a little when you thought of the suffering, the money lost that could ill be spared, in many cases privations undergone to get it together; the blasted hopes after the toil of getting thus far to turn back bankrupt in hope and probably in pocket also.

At one of our camps there were a number of log houses and one that had the appearance of being a sort of barracks. We were told it was where the so-called "New York" outfit wintered. It was made up of sixty-six men who subscribed $1,000 apiece and later were assessed $500 more. They disbanded, each going his own way, the outfit not getting more than fairly started. At a cabin near the Sheslay three men were found dead of scurvy with lots of food and nearly $1,500 in money. A memorandum left indicated that they had not the strength to throw out the first deceased, and the last died with the two other corpses in sight of him.

To show the helplessness of some of these men, a party of three came into Sheslay with a pack horse and unloaded. The horse died within an hour, and it appeared he had not had the pack off for three nights and days, because they did not know how to put it on again. Those from Edmonton fared worse (many were never heard from). They started west and after leaving civilization some parties never saw a white man for over a year. They came out anywhere from the Sheslay River up to the Porcupine River well up in the Arctic Circle, a range between the two points of 450 miles. They could only keep going west as near as they could make it out, but many made too much northing, taking a river when they found it and following it out, rafting when they could, and kept on repeating it, knowing in time they must meet a white man some day, but it is useless for me to undertake the story of the Teslin trail. Material should

HAMILTON'S FIRST MOOSE.

be gathered and then the story would be worthy of the skill of a high-class literary man.

The next morning I was off with Dennis, Hamilton going with Larry. I had a hard thirteen hours of it up in the snow; very cold wind, heads tied up again. Saw nothing except some fresh moose tracks; back at 7:45. In crossing the marsh Dennis fell in twice and I was in three times, once badly. When I got to camp cook reported hearing four shots just about dark. As Hamilton and I had agreed not to fire after dark unless needing assistance, I was particular in inquiring if it was too late to shoot, and the cook said no. When Hamilton came in an hour later he reported that he had fired; his horse got in so deep they thought they would lose him without help, but after an hour's work they got him out. We had been hunting north from the Dudedontie River to Mosquito Creek, so decided to have camp moved to Mosquito Creek in the morning, the cook and horse rustler attending to the pack, while we hunted ahead, starting one hour before them.

Up early and off. There was a cold wind blowing all next day. I had Larry, Hamilton taking Dennis. We had to cross a river about thirty feet wide, so I took Larry up behind. The crossing was rather bad and water swift, the bank on opposite side high and rocky. We selected the best place—from appearances on the other side. When we got there the rocks were large, the horse refused, and we had quite a nice bucking scene. A ducking would have been unpleasant, but broken legs were possibilities. We, however, both kept our seats and I coaxed the horse alongside a big rock where Larry could jump off and get ashore.

I saw nothing all day. Hamilton came in about 8:30 and reported killing two bull moose. He had seen nothing all day until on the way home he saw the two moose feeding close together, and after a long stalk got about 175 yards from them. He shot the big one with his .45 Winchester, and the gun jammed. Fortunately he had Dennis carry his .38 Savage (an extra gun in case of accidents), and with that killed the smaller bull, which, strange to say, had not started to run. The large head is very good, measuring forty-eight inches, and twenty points on each side, and the smaller one well shaped with good points.

(*To be concluded.*)

SPORT IN AFRICA.

By Elmer E. Davis.

PART I.

THE public not caring why I went to Africa, it is not necessary to bother with details, but will simply say I was sent by an American company to assist in the fulfillment of a contract on the Uganda railroad in British East Africa. My duty often led me into parts of the country which it seemed a sacrilege to enter for the purpose of civilization. Broad plains, dense, luxurious forests and pretty lakes which teem with animal life greets one on every hand, and to a lover of nature it offers unlimited opportunities for study.

December, 1901, found me at my post of duty, four hundred and twenty-five miles from the coast, in a region well supplied with game. To a person unused to camping in Africa the first few nights out will no doubt be very trying, as the hyenas seldom forget to serenade a new camp in the proper style, and often on very dark nights the gutteral cough of the leopard will be heard. All except one of the noises peculiar to that country gave me no trouble, but that particular one would awaken me out of the soundest sleep. If there is any one noise which exasperates you more than any other you will know what my feelings were one morning as I was aroused by a discordant *ha-huh-huh-huh-ha-a-a* from not far away; it was not a good honest, deep-chested bray like that which a donkey gives forth, but seemed an abortive sort of squawk with not enough breath to finish in the proper manner. This sound was followed by one somewhat similar but not so loud, and while mentally swearing at the producer I felt that I would almost give my last breath to help him out and be done with it.

It was the greeting from a band of zebras which had taken unto themselves the trouble to awaken me every morning about an hour before I cared to get up. Camp had been pitched near a water hole on a small stream close to the Mau forest, and to this water hole the zebras were in the habit of coming every evening to drink, after which they would feed close by until early morning, when the signal to move out on the plain was given. This signal, as I have reason to believe, was always given by a female, the bray of a stallion following. Whether such is the usual habit of the zebra or not I am unable to state, as this was the only time I have ever been in camp where a herd made a point of spending the night.

Getting up, I hurried into my clothes, for a long day's hunt after Jackson's hartbeests had been planned and it was time to be abroad. After eating a light breakfast of tea and crackers, I called the porters and we started out across the plain in the direction of the trail which leads from Nekura to Elama Ravine. My expectations were that a herd of eight or ten of the big bay animals could be found in that direction, as Dr. Stewart of Nekura had seen them but a few days before. My first effort was to reach a high spot in the rolling plain in order to have a look around, and nine o'clock found us on a hill commanding a good view of the Molo plain, which extends for miles to the northeast and presents a pretty appearance, being dotted here and there with mimosa groves, where zebra are fond of going to nibble the tender grass which grows in the shade; this grass I suppose is this animal's pie and cake after a meal of coarse feed from the open.

With the aid of field glasses hundreds of gazelles could be seen scampering and frisking about on parts of the plain where the grass was not too high. These little fellows are locally known as "Tommies" (*Gazella thomsoni*), and are pretty beasts, having great vitality. Among their smaller brothers could be seen a number of Grant's gazelles (*Gazella granti*), whose long, graceful horns seemed to overbalance their bodies, and about a mile away was a pair of ostriches which appeared to be alarmed even at that distance, for they were making the dust fly in their anxiety to get away. Zebras were

JACKSON'S HARTEBEEST.

grazing in every direction and there were probably several thousand in sight; one lonely old hartbeest showed up about a quarter of a mile away to the left, but he was not worth going after, for I took him to be an old bull which had been driven from his harem by a youngster, and if such were the case his head would most likely be a poor trophy, as these beasts have a habit of expressing anger at their loneliness by goring ant hills and trees, a procedure which soon wears the horns down. I had shot one of these old fellows during one of my first hunts and was sorry for it; the bullet had broken his back, and as I approached him he sat on his hind parts like a dog, snorting angry defiance at me; he must have been a fighter in his day, for one eye was gouged out, his horns were both splintered, and scars seamed his body in several directions; nevertheless there was a world of defiance in his remaining eye as he shook his head angrily at me, and I regretfully shot him to end his suffering and left his carcass for the birds, the flesh not being fit to eat.

Turning to the east, Monga pointed out the hartbeest we were in search of; there were but six of them, but I had no doubt of their being the same band seen by Dr. Stewart. After looking the ground over to find the best cover for stalking, I concluded to go back down the way we had come and make a circle around in order to come up on the other side and have the beasts to windward of me; there was a slight rise in the plain in that direction also, which would be of use in coming near enough for a shot. It must have been two hours before the desired spot was reached, but as it was now near the middle of the day I expected the beasts to be lying down about where they had been seen, so taking my rifle, I crawled to the top of the raise and, lifting my head above the grass, took a look around. As I did so it was impossible to keep from laughing, for the six large hartbeests had dwindled to one little half grown Stein-buck, who was standing a couple of rods away looking at me in a surprised manner. The unusual sound of a human laugh startled the little fellow and he bounded out of sight into a bunch of grass. The hartbeests must have winded me some time before, as they were over a mile away, legging it as fast as they could. I knew it would be useless to follow them, so turned in the direction of an old volcano crater back of Nekura; this crater is some miles in extent, and as I had never before seen it but at a distance, I thought to improve this opportunity to get a closer view as it was now but four or five miles away. Calling the porters, we started at a brisk walk in its direction.

We had gone but a short distance when a low exclamation from one of the porters caused me to stop; he pointed to a bunch of weeds about two hundred yards away and whispered "*Kongonie!*" (Swahili for hartbeest). I looked closely at the weeds, which were in a little dip between two hills twenty or thirty feet higher than the surrounding ground, but could see nothing that indicated game. The porter insisting that he had seen the horns, we started to investigate, and had not taken more than one or two steps when up jumped two big bay hartbeests which had been lying down, using the weeds for a cover as the plain was pretty bare at this place. I missed the first shot but brought one down at the second,

HYBRID HARTEBEEST.

the other running around the hill before I could shoot again. I hurried quickly to the one that was down, to help Monga turn him over in order to cut his throat before he stopped kicking, this being a religious exactment with the Swahilis, who otherwise consider the flesh unclean; laying the rifle down, I seized a front leg and gave it a jerk; as I did so a loud snort came from the direction in which the other one had disappeared and turning quickly I saw him coming full tilt in my direction. Snatching the rifle from the ground, I pulled the trigger without putting it to my shoulder, and you can easily imagine my astonishment to see the beast roll over on his back and give a few kicks and then lay still. Upon examining him I found the bullet had entered the forehead half an inch from the center. This was an extraordinary occurrence, but I claim no credit for it as it was purely a chance shot; I did not even see the sights, and the most expected was that the beast would turn from its course. Since that day it has been a matter of speculation with me as to what he really intended to do. Was he looking for his "pardner," or were we the object of a charge? Personally I am inclined to think it was the loss of his companion which caused him to return, for they are not considered a vicious beast unless wounded.

As we now had all the meat the porters could carry, loads were made up and the return trip started. We were fourteen or fifteen miles from camp, so I decided to give up the trip to the crater, and leaving the porters to come on more leisurely I called the gun bearer and walked on ahead.

When near camp we stopped to talk with some Masai warriors who were in charge of a herd of cattle which some boys were driving; they were heading for the Njoro plain, where better pasture was to be found. The warriors told me that back of Nekura, from where they had come, lions had taken a number of cattle and sheep from the herds. Upon informing them that I should like to see a lion they expressed a desire that unlimited numbers of them should come my way, but as for my part, being modest, I thought small doses of this animal would do to start with, say one or two at a time, until I had become accustomed to them.

A COMPARISON OF HEADS.

On leaving these lords of Central Africa—for such they are in that district, as they are considered the most honorable tribe to deal with and their word is as good as a bond—they shook my hand cordially and wished me good health. We arrived in camp at five o'clock, and after a walk of about thirty-five miles on a breakfast of only tea and crackers you may believe I was hungry. However, after interviewing a quarter of Stein-buck and a stack of *chapatties* the feeling left me. "And chapatties—what are they?" They are a sort of substitute for flapjacks, which are made in the following manner: flour and water are mixed to a very tough dough, which is hammered between the hands into a flat slab a quarter of an inch thick and baked on a piece of tin or sheet iron over a slow fire until brown on both sides; the result is an anomaly, with a crust on both sides covering an inner layer of dough which is so tough as to require very good teeth to reduce to a state in which it can be swallowed. For some reason all native cooks are very partial to this "delicacy" (!) and will serve it three times a day if allowed to; in other respects their cooking as a rule is very good.

The porters did not return until after dark, so I did not measure the horns until the next morning. One I found to be an exceedingly good head of a Jackson hartbeest (*Bulbalis jacksoni*), the horns measuring on front of curve twenty-three and a half inches; circumference at base, eleven and a half inches; tip to tip, ten inches. This is the best head of this species ever secured in that part of the country, but I have heard

that farther northeast several twenty-four-inch horns have been taken, which were, however, smaller in circumference.

The other set, which I had taken for a *jacksoni*, upon closer examination proved to be quite different, as the tips of the horns pointed inward instead of outward, the base also having a broader and less elongated horn pedicle, which leads me to believe it to be a hybrid between Jackson and Neumann hartbeest (*Bubalis tora neumanni*), as it had some of the features of both but favored the Neumann to some extent. The measurements were: length on front of curve, twenty inches; circumference, eleven inches; tip to tip, eight inches. These two heads pleased me very much, and I considered them well worth a long walk.

As we now had plenty of meat I did no hunting for several days. having no desire to kill for the mere sake of slaughter. My next hunt was after "bush-buck" in the jungle, and I had a comical experience with a couple of rhinoceros encountered on this occasion, which I will be pleased to relate in my next article.

IN THE AUTHOR'S MUSEUM.

SURF FISHING.

By Harry H. Dunn.

FISHING for yellowfin, surf fish or even "nippers" in the foamy breakers of a full tide at almost any of our southern beaches is one of the best of the many outdoor sports to be had in this end of the State. There is, it is true, other game than fish to be sought within a few miles of Los Angeles—for there is rabbit shooting of the best to be had at old Fernando, as well as myriads of quail in the foothill cañons but a few hours' ride from home over one or the other of the many steam lines—but for convenience and all 'round sport commend to me the surf fishing at Playa del Rey, Redondo, or even Long Beach at certain seasons of the year. There is, of course, no trout fishing within convenient distance, and for our game fish we must turn to the sea. Much has been written, and more told by successful anglers, of the wonderful fights made by tuna and jewfish and yellowtail in Channel waters, but there has been little set down about the lesser game fishes that swarm in such numbers in the surf of our mainland coast. These fish will run all the way from half a pound to five or six pounds in weight, and if properly fished for will put up a game fight.

There are many anglers who are too busy or to whom the expense of a long trip would be too great, and who can not, therefore, take more than a day or two for a fishing expedition. To such let me recommend trying for the game described below and see if the pleasure therefrom is not as great or greater than the landing of a boat-load of barracuda on a hand-line. Fishing from the wharf is about the only way when the mackerel are running, but fishing in a foot or two of foamy, swirling water is the best way to catch the gamey yellowfin and to get any sport out of it as well.

First of all it is necessary to have a good, strong pole and line; the former should not be too long and preferably of only two joints; a good linen line, say 250 feet in length, will do as well as any. Much of the strain of landing the largest fish need not come on your pole, but must of necessity come on the line and the "gut" leaders to your hooks, which should be of the best. Your whole outfit need not cost you over four dollars, that being the amount paid by the writer for his rod, reel, line, hooks, sinker and everything. If more line were wanted, the cost would of course be proportionately greater, though cheaper lines can be purchased, and if not overworked will answer the purpose. The wife of the writer, who, more often than not accompanies him on these trips, uses a light split bamboo trout rod, a small "Amateur" reel and 150 feet of very light cotton line, which latter cost but forty cents and seems to do as good work as the heavier lines. A fairly good 100-foot hand line can be bought for thirty cents, but there is little sport in fishing with a hand line either from the wharf or from the beach.

In the choice of reels for surf fishing the simple reels of the larger size are the best; the multiplying reels are mostly failures in this work, and are not, in many cases, strong enough for the sudden strain put upon them not alone by the fish, but by the boiling breakers forever tugging at whatever comes within their grasp. The reel should easily carry 300 feet of this line, but above all things do not get a wooden reel as the little handles are forever coming off and the reel always works loose on the pole just when it is most needed.

In choosing a sinker, which is the next most important part of the output, care should be taken to get one that every little wave will not roll about on the floor of the sea, yet which will not be too heavy for easy casting to a distance of from one to two hundred feet out into the breakers. For this purpose a four-sided sinker is made, through which one or two screws should be set to further act as a drag upon the force of the waves. It is a good plan to always carry more than one such sinker, as well as more than one "leader," for the loss of one is not an unusual thing, especially if the yellowtail wanders by when one is fishing from the

end of the wharf. In such a case one has unusual good luck if the rod and reel remain in his hand.

Having secured pole, reel and line, almost any reputable dealer will sell you the correct size of hooks for the various fish—little ones for the smelt, larger for "jack" smelt and mackerel, and still larger ones for surf fish, yellowfin and bass. For surf fishing a leader about four feet in length is required (this can be made from a piece cut from the main line as there is no need for the leader to be stronger than the line). To the lower end of this attach the sinker and scatter four hooks at equal distances up the leader. With a five-cent swivel attach the leader to the line, and your outfit is about complete, unless you wish to invest in a creel and bait box.

Now come with me to some beach where the surf is deep enough and the beach not too rocky, else sinkers and leaders will catch in the rocks, and there you will be. But if the day be right and the beach right, and the big yellowfins be running as the writer has seen them run many a day at Playa del Rey, you will have sport fit for a king. The water boils in little swirling eddies as you step out into it in your bathing suit or an old pair of trousers. From your pole's end hangs the leader and about a foot of line, the rest being wound evenly on your reel. If you are wise, four soft-shelled sand crabs struggle on your hooks (don't use the hard-shelled crabs, as the fish do not take them well), but if you can not get crabs, use a big cut of juicy clam. For an instant you watch the sea to know just where to send your line the farthest with the least effort. Then your leader swings out behind, you take a step forward, put your weight on the pole, and your sinker leaps out and over the foaming sea, carrying with it a hundred feet or more of line that reluctantly screams as it leaves the reel. Unless you have been careful to keep your thumb near the reel and apply it as a brake just as soon as your sinker strikes the water, you will have trouble. Your line will kink and snarl and overrun the reel and the chances are that while you are untangling it you will have the best strike of the day. Do not buy a reel with a brake; they are a delusion and a snare, and the best brake the angler can

THE BEST PLACE FOR YELLOWFINS.

A DAY'S CATCH IN THE CHANNEL.

have is his thumb, well applied. But if you have been judicious and made a good cast, your line will lie just taut between your sinker some one or two hundred feet out and your pole, held firmly yet lightly in the hand, the reel ready at any moment to loosen or tighten its grip on the line.

If the hour be, say about four o'clock of a pleasant afternoon, you will not have long to wait for a bite. First will come quite a nibble, then (if your visitor be a yellowfin) a good strong tug. Then, and not till then, should you strike your fish. On a filling tide the task, or rather pleasure of landing him will not be hard or long continued, but should the tide be going out it will test your skill as a fisherman to save your game, aided in his own struggles by the outgoing water, to say nothing of a tender mouth from which the hooks are all too easily torn. With the last strong bite begins your struggle, first you wade out into a foot or two of surf, playing him gently, oh, so gently! until a returning breaker enables you to run back upon the beach and take in twenty feet or so of slack line. Then it is down into the surf again, perhaps giving back the twenty feet of line you won in fear that you lose the golden-sided fellow. But this can not go on forever, and the fish tires before you do. He makes a last convulsive dash for liberty; you follow him, nursing him like you did your first trout—only with a hundred times more strength and a thousand times more care—for is not this your very first fish out of the old Pacific's white-capped edge, and you must not lose him. And you don't. Time and again you feel your slack line with a dumb trembling down somewhere about your heart for fear you have lost him, and you know very well that the particular fish on your hook is the only one between California and Japan. But after you have caught six or seven you calm down a little and decide that the "very biggest one" is still uncaught, though each new take seems larger than the last. But to return to your fish: he finally ceases to struggle altogether, and you slowly reel the dead weight out of the edge of the biggest ocean in the world, and want to clap your hands for the very joy of possession, of conquest, the same old happiness that comes over one the first time he sees a new bit of the world, where he, at least, has never trod.

He flops about a little and you pick him up very carefully, very tenderly, lest you lose him on the very verge of victory, but you manage to stick a finger in his gills—and most likely a hook or two in your finger as well, at which you say nothing, being of a cool, temperate disposition—and, having rebaited your hooks cast out once more. Don't be tempted away after any false baits—sand crabs are the most alluring to the gentle palate of that salt water sucker, the yellowfin. If you don't get a strike right away, you go over and view your prize, then you hold him up and shout your loudest to your friend who is fishing some hundred feet further down the beach, and who already has three nice, big fellows, much to your chagrin. But if yours is a six or seven-pounder you may well be proud, for ninety-nine out of every hundred yellowfin taken in this manner will not weigh over four or at the most five pounds. The writer knows one old fisherman who has pulled out, in one evening, from a patch of surf less than three hundred feet square, an even score of these beauties the smallest of which weighed three and a half pounds. But such fishing is only at full tide and in the early fall, when yellowfin are running exceptionally well.

Of course there are other fish to be caught from wharves or boats anchored close in to the surf line, but there is not the sport in any of these that there is in beach fishing unless it be in catching gamey bass from the breakwater at San Pedro or the longer wharf at Redondo. The sport, however, is rather tame when compared with an afternoon spent in pursuit of yellowfin in the

manner the writer has attempted to describe. It is always well to go amply prepared in any kind of sea fishing, however, for sea weed takes many hooks, and what the kelpie misses the piers of the wharf often get, especially when fishing for bass and "jack" smelt. Perch fishing about the piers is sometimes good, but a whole afternoon is often spent after these flat fellows and the resulting bag not exceed four or five. Fishing off the extreme end of some long wharf for halibut is not much for sport, but it is often productive of much meat in the way of a twelve or fifteen-pound fish. In this sport the same outfit used for yellowfin is often successful, but the bait should be either clam or very small smelt, impaled alive on the hook. The halibut is not at all gamey, but requires strength in rod, reel and other tackle to land the heavy fish. In the lagoon at Playa del Rey are many small halibut, but there are also many useless little "bullheads," and these latter spoil the halibut fishing there. Probably the best way to fish for the big flat fish is with a hand line, but be careful to get your line well down to the bottom, else some passing yellowtail may make you trouble.

Geo. Gignac Photo.

LOOKING DOWN THE MINAM (OREGON).

A WOMAN'S FIRST DEER HUNT.

By Ada Rockwell Huff.

AT DE BEQUE, Colo., we left the railroad and made our way to a comfortable little hotel called The De Lano—in fact, it was so comfortable we decided to remain until morning and ordered the stage for half past six. Needless to say, the stage was there before we were down, but this was not due to elaborate toilets but rather to the great aversion of the gentlemen to rise before daylight. As we were the only ones discommoded by the delay, there was no fault found and we were finally stowed with all our luggage behind four good horses. The most exciting incident throughout that twenty-mile drive was when we saw our first deer tracks, which proved that a herd had crossed the road shortly ahead of us.

We reached Glen Bulah Park before eleven o'clock and were met by Mr. Newton, the owner of a beautiful ranch, situated in a fertile valley surrounded by high mountain peaks, on one of which was the thread-like trail we were to follow that day. Now this trail was my particular dread, for I had heard dire tales of the fear it inspired even in the breast of man; how more than one had crawled over on his hands and knees; and during our drive that morning Mr. C. told of a friend of his who had become so bewildered on crossing that he lay down and screamed for help until his comrades were obliged to turn back and lead the frightened man over. At such tales I would shudder inwardly, but dared not express my fears, else I would not have been thought worthy the present expedition.

On first reaching the ranch we went to the stables to select horses. Will I ever forget the terror I felt when a huge bay was saddled and I was told it was for me. Mine for a whole week! I tried to look brave as I clambered onto her broad back with the aid of two men and a milking stool. Or can I ever explain how helpless I felt when, after a good dinner, I found myself mounted again and headed toward that dreadful trail. How

NEWTON'S RANCH.

I envied Mrs. C., who swung into the saddle and rode away at a gallop, as much at home as though she were in a rocking chair. Indeed, her horse resembled that commodity much more than mine, which was surely never made to ride.

The sun beat upon us relentlessly as we wound back and forth up tnat mountain side, but I thought only of my horse and dared not look below, though I am sure no finer scenery can be found. I was glad when we reached the dangerous part where the trail crosses from one mountain to another, over a narrow ridge from which one could look down (if he dared) on either side for thousands of feet, and where they say a rock dropped cannot be heard to strike. However, the only creature that was ever known to fall over was a burro—one of the pack train.

I was amused to hear of one man who went up this trail to hunt for a week, and who became so depressed thinking of the journey down that he nearly had nervous prostration. One day he called the driver of the pack train to one side and asked if he could not be strapped to a mule and taken down as the poor dead deer are, but when the driver told him of the luckless burro that had lost its life by one misstep, the man concluded to trust his own feet, and I believe he reached home safely.

I say I was glad when we reached this part of the trail, for then I was allowed to dismount. Lame as I was, this was a precious privilege, to say nothing of the joy of being safe on my two feet once more. The walk over the trail was not so dreadful after all, but one would not dare take any chance of slipping.

After leaving the ridge the road was comparatively comfortable, though now the horses were urged to a gallop and this was awful to me, but I had to be a "good fellow" and dared not complain, though I am sure there was not a spot in my body that was not black and blue.

Just before reaching the cabins a small herd of deer crossed in front of us and bounded away out of sight. No one offered to give chase, for which I was truly thankful, my only ambition at that moment being to reach the cabins and get off that awful horse.

Arrived at camp we were received by two girls, who acted as cooks and made themselves generally agreeable. Of the two cabins, one was lined with bunks, two rows on either side, and in one corner a welcome fire greeted us from a huge fireplace. These bunks are supplied with springs and mattress, all of which were brought on the backs of the little burros. The other cabin was kitchen and dining-room combined, everything tidy as possible.

We had not been long in camp when the gentlemen suggested going back in search of the deer we had seen if haply there might be a buck with them. Mrs. C. and I were quite satisfied to remain and let the men ride away. They had not been gone long when shots were heard and we saw the deer bounding over the highest mountain, followed by the buck, which appeared to be wounded. Soon the men appeared on their trail, but too far away for us to point out the direction the deer had taken. After a fruitless search, the disappointed hunters came slowly back to camp. Then was told the story we heard more than once during that week; how they had one good shot at the buck, which dropped to the ground, and as the luckless hunter put down his gun and started toward his prey, the poor creature jumped to his feet and bounded away—most likely to die.

A party from New York, who were hunting in these mountains during the early fall,

OUR MOUNTAIN HOME.

spoke of finding many dead deer from which not even a steak had been taken, attributing it to reckless shooting, but after our experience I feel sure it is because the hunter cannot find his game after it is shot. It is wonderful how far these creatures will travel after receiving a death wound.

Two gentlemen from Denver were stopping at the cabins, and they came in shortly before dinner with the disheartening news that after a two days' hunt they had seen nothing, not even a doe.

Dinner over, there was very little to tempt one to stay up long, for the only place of comfort was in front of the fire and our choice of seats lay between a three-legged stool and a bag of oats—the latter being preferable.

Through the thoughtfulness of Mr. Newton a canvas was stretched in front of our berths, giving us a small dressing-room. The only inconvenience was the necessity of disappearing before the men wished to retire and

ONE DAY'S RESULTS.

staying in our berths till all were up in the morning.

The horse wrangler kept an alarm clock and this would go at three o'clock every morning; its sound caused great discontent among some of the men, but as all wished to be in the saddle by six o'clock, it really did not give too much time to hunt the horses and have them ready.

Our first day's hunt was not especially fruitful. We started, just after daybreak, up one of the wildest looking mountains in the neighborhood, and as we climbed single-file, with my horse always bringing up the rear, the bushes and scrubby trees scratched our boot-tops and kept me drawing up my feet for fear of being dragged from my horse: but that was so much more comfortable than the trip down on the other side, clambering over logs and between tiny trees. In fact, one danger was no sooner over than I discovered a new one. Then my horse had a disagreeable habit of jumping small streams, instead of wading them; and the first time she tried this feat I was nearly thrown, but recovered myself with the loss of my hat and a few hairpins.

From the next ridge we received encouragement in the form of some deer, but it seemed to me we went miles around to head them off, and then failed to find the object of our search—a buck. But for the first time I had a good view of the doe and fawn as they bounded up the mountain side and it was a beautiful sight. They will look at you curiously, as if quite sure it is not they you are after, while the wary buck takes very few chances. Quite likely one was hiding in the quaking asp at that very moment, but if so he was too wise to identify himself with the herd.

Thus we traveled up hill and down dale till hunger finally drove us back to camp, where it was decided to leave the ladies while the gentlemen would try their luck alone, no doubt thinking to get better results unhampered by us.

When they were well out of sight, Mrs. C. called for our horses and we were soon in the saddle, traveling in an opposite direction from that which the men had taken, not with any hope of killing deer but thinking possibly to find the wounded buck we had seen the day before.

I was not jolly company and felt like a bunch of toothaches as I jogged along behind my companion, who kept her gun across the saddle in front, as she had seen the men do, and turned her head from right to left alert for a pair of horns. Suddenly she was off her horse and taking aim. Bang! bang! went the gun, and before I could realize what was happening a beautiful buck was stretched on the ground. Then did the bold huntress dissolve into tears and, throwing her gun aside, ran to the fallen deer and, taking its head in her lap, weep aloud. We did not know till later that this was a very dangerous thing to do, but were told that had the deer not been quite dead he might perhaps have killed his would-be mourner.

We tied a handkerchief on a near-by tree to mark the spot and hurried back to camp with the joyful news. Next morning we went with the horse wrangler and a burro to bring in our game, while our husbands again went alone to other fields.

Two bucks beside ours were brought in that day and in the evening there were more strange faces in camp—a party of five gentlemen from Leadville and four from Denver. Among them was the deputy warden, but as no one had any intention of breaking the game law this last mentioned gentleman caused no consternation, to our party, at least.

Thursday morning our horses were ordered earlier than usual, and we went forth long before the sun appeared with his warming rays. As we felt the week slipping away, the gentlemen were more than ever determined to bring in some game. We separated frequently, two going over the mountain, while two stayed in the draw below. I usually begged for the latter field, having no taste for skirting the rim of a mountain like a fly on a wall.

As we came together once after several fruitless manœuvers of this sort, we saw a "bunch" of deer led by a splendid buck, far up on the mountain above us. Although nearly seven hundred yards away, the gentlemen proposed trying a shot. Never would I have believed the sound of a gun could have been such music to my ear. One of these shots took effect in the shoulder, but before the beautiful beast could be hit a second time he had limped over the ridge and out

of sight. We gave chase, but as our way led through the timber it was thirty or forty minutes before the spot could be reached, and it was long after noon before we found the object of our search in a clump or sage brush, his head thrown back, showing a set of horns which would well grace the corner previously selected. We gazed on our prey in admiration and pity until the process of "dressing" was begun, then we ladies turned our back and busied ourselves with the horses: But when it was found that even women could be useful, we turned our attention to the buck, which had to be left in a place of safety until the burros could be sent for him. Tired but happy, we then sat down to lunch on a dry sandwich made of biscuit and venison. The sun was shining and a beautiful autumn day should have made us happy, even if that deer had not been in our possession. But we were not satisfied yet and after a short rest climbed into our saddles again.

I was always glad when the advance guard would halt and point to something in the distance, for this meant a little rest and diversion. At such times the glasses would be called into use and, after everyone else had studied the mountain side for five or ten minutes, I could detect two white spots standing immovable among the trees. But nearly always such breaks in the monotony were ended by the whispered words, "A doe and a fawn," till I almost hated their names.

In the middle of the afternoon we again rested by a clear little brook which furnished the means for quenching our thirst. Just as we were leaving this secluded spot, rain and then snow began to fall and caused us to turn the horses toward camp. Nearing a clump of trees, a buck was discovered at what would have been easy range had it not been for intervening "quaking asps." Mr. C. was the first to bring this deer to his knees, but he was up again and soon disappeared. We followed, regardless of the storm and as my horse and I came up with the rest more shots were fired and the joyful news, "He's down!" greeted my ear, but as on previous occasions, when search was made

Geo. Gignac Photo.

"ONE OF THE WILDEST LOOKING MOUNTAINS IN THE NEIGHBORHOOD."

no buck could be found though he had been seen to fall on the opposite slope. After wandering up and down in the mud for some time, we gave it up and returned to the horses. Wet and cold we again turned toward camp and even I was glad to let my horse gallop that we might the sooner reach warmth and comfort.

Next morning I could not help but feel relieved at the news that several of the horses were missing and among them my husband's. I lost no time in offering mine to my better half and settled myself for a half day in camp. With no rocking chairs and nothing to read this was not so luxurious as one might imagine. I walked up and down, listening for the sound of guns until the cabins had been swept—a decidedly dusty operation, as there were no floors. Then I seated myself at the dining table and indulged in a game of solitaire; to give zest to the game, I announced that in case I beat it would mean a buck. By eleven o'clock the party returned without winning their game, nor had I succeeded in winning mine.

Now it did happen during that week that one or two suspicious looking deer were brought in headless, but no one asked any questions and when a lucky man brought in a deer with head and horns attached which he did not care to ship, we noticed that this head was apt to be packed down the trail in close company with the afore-mentioned headless beast.

Friday being only half gone, we had an early lunch and started toward the north. We had a pleasant afternoon, though it ended as fruitless as its predecessors. I remember that just as we were about to start back to camp a splendid buck appeared on the crest of a nearby mountain, but so far away that to shoot would be but a waste of ammunition. So we waited and watched his movements as he stood with his beautiful head outlined against the sky. Truly, he made a picture which we will not soon forget. But not for long did we enjoy the sight ere he turned leisurely and disappeared. One could almost wish that game laws allowed these hunted creatures the privilege of roaming unmolested over their native mountains.

The moon was shining long before we reached camp and as we jogged along on the main ridge we heard a voice far back among the trees as if calling for help. We rode to where our horses were outlined against the moonlight and kept up an answering shout, until the lone horseman came in sight. This proved to be the game warden with a buck on his horse in front, but when questioned he assured us that he was only singing and would not acknowledge being lost.

Saturday, our last day to hunt, came at last and we were more than ever alert to sight and sound as, single-file, we rode slowly over mountain and through draw, not caring how far we traveled and only longing for a sight of game. The morning was varied by occasional glimpses of deer, but nothing that would warrant a shot. The weather was more or less cloudy and I did considerable shivering as the day advanced with no sun to cheer our way.

We chose a pleasant spot to camp for lunch, but found the ground so damp and cold we were not tempted to linger long over our "buckskin sandwich" and soon after noon were again in the saddle.

We then divided, two going one way and two another as we had done many times before. In this way we frightened up a good number of deer, but no buck appeared within shooting range. As the afternoon was nearly gone we came together once more and rode single-file along a gentle slope, feeling too disheartened to attempt conversation, when suddenly some deer were discovered on the opposite slope, apparently hiding among the slender trees. After passing the glasses from one to another a buck was located among the herd and it was resolved to bombard the poor creature. Accordingly all sat down on the ground to wait for him to move; but this he had no intention of doing, feeling comparatively safe behind those tiny trees. And safe he was, till tired of waiting there in silence Mr. C. fired a shot into the air far over their heads. This had the desired effect of frightening the deer and as they bounded through the trees all took aim and fired—that is, all but me. I took aim very carefully and when quite sure of my sight pulled the trigger, but with no result. I then discovered that the gun was not cocked, but I think it was a relief after all, for who knows what might have happened had I fired! As it was, our game eluded all shots and disappeared for the time being.

Geo. Gignac Photo.

WHERE WE HUNTED THE LAST DAY.

Slowly and quietly we followed in the hope of again coming up with the deer; and so we did, though why those hunted creatures did not bound toward the top as usual, I do not know. But there they were on the opposite slope, again hiding among the quaking asp; again we all dismounted and waited on our side for a chance to shoot. Waiting until the sun was nearly down, we fired an alarm and as the game bounded on again, one telling shot hit the coveted buck in the hip and he fell, but only for an instant when he was up again and out of sight. Then Mr. H. gave chase on foot, while that crippled deer ran much faster on his three legs. But the two legs out-ran him at last and another shot in the neck brought him down. By that time Mr. C. had arrived from another direction and the game was theirs. The sun had set and ere the deer was dressed and strapped to a horse it was nearly dark and no one knew exactly which way home. But all felt the necessity of reaching the Divide before dark. Burdened with the buck on one horse, we climbed to the top of the nearest mountain, but were disappointed not to find the Divide which would have given a clue as to our location.

Down we went into another draw and up again to another mountain until I saw to my great consternation that the gentlemen were lost. My husband in whom I had such unbounded faith—if he were lost, where in this world was I? At last Mrs. C. was placed behind me on my horse and my husband took hers, in the hope of hurrying the expedition. But why hurry, when who knows but we might be going further from camp!

Once we thought we saw a light which might be a signal and then we took heart and one of the guns was fired several times in quick succession, but nothing more was seen and our hearts went down again accordingly.

Finally we grew too cold to ride, and all were obliged to walk and lead our tired horses. This was dreary and with hunger gnawing at our stomachs a faintness began to overcome our ambition to get on. By half past nine, when the horse bearing the deer lay down and refused to travel further, it was decided to halt and make a camp. This was not a pleasant prospect to me at least, as I would rather have staggered on with a prospect of shelter sometime than give myself up to a night out of doors. But at a

WHERE WE CAMPED WHEN LOST.

time like this my advice would not have been heeded, so I wisely kept silence as we turned into some quaking asp, where a bonfire, our only comfort, was soon blazing.

The horses were tethered and left to get what refreshment they might from the scanty sage brush. Then four miserable wet blankets were taken from under the saddles and used to make us, if not comfortable, at least less comfortless.

One was placed on the ground, one stretched over sticks, like a child's playhouse, and two reserved for covers. Supperless and cold we crawled into this rude bed and before many minutes had passed everyone was sleeping audibly—everyone but me. I was sentinel, self-appointed. Someone must watch the horses and fire, and as for sleep, why! my eyes were fairly sticking out of my head, watching for mountain lion or bear. Why should they not be attracted by our fire? So every time I peered forth I expected to see a pair of shiny eyes looking out of the darkness, but the eyes did not come and soon my fears were turned into another channel.

No matter how discouraging your condition, remember it could always be worse, and I felt this truth as the rain began to fall. Rain at that time of the year was sure to turn into snow and with the ground covered with snow would we ever find our way back to camp? To be sure, there was the buck—but as I looked at him, I hated the impulse that had tempted us to lose our way in pursuit of him. What did he amount to in comparison to all we had lost or might lose from that foolish chase. Thus my gloomy thoughts kept me company as I piled more wood on the fire, lest the rain might rob us of that one comfort. But the worst effect it had was to send volumes of smoke into my face till I was glad to hold the wet blanket over my smarting eyes. Soon the blankets were wet through and my sleeping comrades were wakened by the water trickling down their necks.

I was alarmed anew when I saw how seriously they looked on this new predicament, and when Mr. H. started to light his pipe with a match he was hastily reprimanded for his reckless use of what might be very valuable should we be in the mountains some days.

Still the rain fell, but in spite of the discomfort thus caused the men were soon sleeping again, while Mrs. C. and I tried to get some warmth out of the smoking fire, thinking it better than a damp bed with the chills running down our backs.

Occasionally I would inquire the time and was surprised each time that it was no later. Finally, I crawled in on the side farthest from the fire and lay there utterly wretched and undone. If we lived to reach home, would anyone ever dare suggest a hunting trip again? Such were the thoughts flitting through my brain as I watched the clouds for some sign of hope, and when a friendly little star would appear and wink at me I was comforted. Occasionally the clouds would break and show the moon; then again they would roll together and come falling over the earth till I could not see a yard away. Then they would roll back and show a streak of brightness on their edges—I was reminded of "Faust" as I had seen it at the Metropolitan, where the angels come down in the clouds after Marguerite. It may be that clouds have nightly performances of this sort, but it has not been my privilege to observe them. At intervals I would catch myself mentally humming "Poor Babes in the Woods," but this was such a gloomy theme I dismissed it soon as possible.

Thus I kept my virgil until morning began to break, slowly as though the night were loth to give up its reign. The storm was over, but my! how cold and damp it was. As soon as there was light enough to see I called the men, and as they crawled forth with their bearded faces besmeared by smoke I thought I had never turned away a worse-looking tramp from my back door than did

these usually immaculate-looking husbands appear as they greeted the morning from that cheerless tent. I tried to laugh, but it was a sickly effort in sight of our misfortunes and no one joined me in it.

The wet blankets and wet saddles were placed on the hungry horses, and the hungrier riders mounted. Which way should we take was the question till one of the horses was given his rein and allowed to lead. We followed slowly, as that little horse went straight up the mountain side. Our teeth were chattering and our shivering horses refused drink as we crossed a clear mountain stream. Arrived at the top, we found snow and looking into the valley beyond we saw what made our hearts glad. It was the cabins, and our party involuntarily sang as we wound our way slowly down, knowing that breakfast and a warm bed awaited us there.

How cordially we were greeted and how luxurious those miserable little cabins looked to us! We had left the deer but brought his liver with us, and it with some bacon made a breakfast to be enjoyed after our long fast.

After being thus refreshed the gentlemen went back after the buck, while Mrs. C. and I tried to make up some lost sleep; but I could not so quickly forget my recent troubles and the harder I tried the less sleep came, so I finally gave it up and sought the comfort of the fireplace where the hunters were gathering by this time. In the evening as we felt the warmth and comfort indoors we could not but feel kindly toward the least of our fellow-hunters and I am sure that as

THE NET RESULT.

ONE OF THE BEAR DOGS.

least our party could have joined heartily in "Praise God."

It was raining and snowing, by turns, in the morning, and a trip down the trail did not look inviting, though to stay was scarcely more so; as we had already overstayed our time, preparations for the descent were begun soon after breakfast.

The bucks were strapped on burros which were driven ahead by the horse wrangler. I was not allowed my usual place at the rear of the procession, but two of our new acquaintances followed me. Thus we were quite a party as we went slowly along the snowy trail. If it had seemed slippery on our way up, how much more so was it with the snow and ice added. Once I lost all courage, fearing my horse would fall and carry me with him as I led the huge beast down those rocky steps, but the horse was surer than I and there were no mishaps or missteps throughout the trip.

At the ranch I could not help a glad feeling as I dismounted for the last time. After a week on the flat tops a dinner at the ranch was a luxury and everyone felt in good spirits although not carrying away our alloted portion of game.

In the evening Mr. Newton took us into the deer park, where we formed a strange procession behind his dark lantern. This light attracts the deer while we, single file behind, are in the shadow. The deer came from all directions and we saw more bucks in one minute than we had seen throughout that week; but these were not to be shot—and who would shoot them if he might?

We were also shown the dog kennels, where some fine specimens were awaiting the opportunity to hunt bear. These were offered us for that purpose next day, but we were bound for home and took the stage for De Beque instead. Our suits did not look so fresh as when we started nor did we, but I had shot a gun and rode a horse. By another fall I may be as anxious as any old hunter to try my luck again.

AN OFFENSE AGAINST THE LAW.

By Hamilton Wright.

THERE the woods parted at Point o' Pines, the sluggish stream, which had been struggling through a tamarack swamp, merged into the lake. The lake was clear and cold and crystal. Deep forests clung close to its pebbly beach, overhanging the mirror waters or crowded away by big boulders. In the morning, when the lake was still, trout rose and swirled again beneath, a widening ripple marking the spot where they rose. Loons laughed upon the surface of the lake. Sometimes a bald-headed eagle perched motionless upon a great blasted pine near the camp, and pruned his feathers as the first red of the sun slanted across the forest. Then, when the blue smoke wound up from the breakfast fire, he would spread his wings and float across the lake.

The forest itself was primeval. One could see the cleft imprints of the deer hoofs across the logging road. Even since the hotel had been built at the upper end of the lake, grey wolves had run a stag all day through the swamp, driving him three times across the lake and pulling him down at dusk just below the old sawmill. Near the Point o' Pines were the cliffs where a cornered buck had put his hoof through a fox hound's chest.

There were four of us in the party and we put the time in pleasantly, fishing and dreaming. We had stayed a week overtime. Our funds were gone and we had but our tickets to the city. Even the larder was in a bad way indeed, for the last side of bacon had been munched in the night by a stray cow who liked its salty flavor, and then an itinerant porcupine chewed the string and the remnant fell from the hemlock tree into the ashes.

We had no intention of hunting deer. My dog was a rabbit dog—a sort of cross between a beagle, a fox hound and something else—and I did not think she would take a trail, especially as deer were not in season. However, the lake was a marvelously enchanting one and we felt its charm. The game warden lived about a mile and a half from camp. He used to drop in once in a while and yarn of an evening. In fact he spent most of the time with us when he was not in the barroom of the hotel at the upper end of the lake. I think we mentioned to him several times we were out of meat and were going to get a mutton.

This has little to do with the story. The story arose over an argument as to whether my dog, being a rabbit dog—and consequently, as we all said, a fool—would run a deer. It was through the test of this argument that the plot for the story culminated. The argument, like most arguments, was qualified, and ran something like this: "If my dog would strike a deer trail—say in the tamarack swamp a mile back of the Point o' Pines—would a man stationed in a boat near the point be able to hit the aforesaid deer with a shotgun and number six shot, provided the trail was a hot one and the deer took stright to water?"

The argument took place at campfire. The morning after the argument was a wet and misty morning. The fog hung thick in the

air and the needles of the pines were coated with tiny beads of moisture. It seemed a good morning to test the argument. I am not a conscious violator of the law. I respect the law, and I had no share in what I believe was probably an unlawful and wholly unjustifiable act, attendant upon the demonstration of the problem as to whether my rabbit dog would run a deer. The forest was dark and still, and as I walked along the narrow logging road with my rabbit dog, the great trees towering on each side, I felt as one who treads the sombre aisles of some mighty cathedral. I had come to the midst of the tamarack jungle. In the sand scattered thinly over the corduroy road, I saw tracks, sharp cleft tracks leading straight ahead. Suddenly my dog tugged at the rope and let out a clarion baying as only a beagle can. In the forest I heard the *k-plump-plump*, as of a heavy animal jumping through the bush. I unleashed my dog and she shot away like an arrow, her baying making the woods ring as though a whole pack were on the trail. I heard her for ten minutes and then there was a sound as though some one had shot off a gun. I spent a good two hours working through the brush toward the Point o' Pines, and there at the water's edge I saw a couple of my chums in a boat while the dog, bandaged like a mummy, lay upon her back on the beach, her paws waving feebly in the air and her whole appearance giving the impression that she had come through a cyclone or barely escaped a sausage mill. The boys said my rabbit dog *would* run a deer, and that if a deer were started about a mile back of Point o' Pines he would probably run straight to water at about the spot where they were located, but it was also possible that, being fresh, he might head back into the woods again upon seeing them, whereupon it might also happen that some one in the excitement would pepper the dog by mistake. Accidents, to put it tritely, will happen. I regret that my dog was shot. But she was a rabbit dog and had no business to take a deer trail. However, my argument was partly proved; for it is established conclusively in the traditions of the lake that if a rabbit dog strikes a deer trail in the tamarack swamp about a mile back of Point o' Pines, said deer will go for water, but will turn back upon seeing hunters in a boat, whereupon the dog will invariably be shot by mistake.

DEN DREAMS.

WHAT hunter has not gazed amid the coals,
And therein saw the quarry from afar;
The setter ranging where the brown hill rolls,
The fallow field with luring gates ajar.

Heard the long cry of the deep-baying hounds,
And the wild crashing of the startled deer
With fleeting run and long, wide-leaping bounds—
The huntsman's horn, that calls from far and near?

The booming roar of the brown lordly grouse,
The quickened flight of gamey mountain quail;
The honking of the gander to his spouse,
The whistling wings of woodcock in the swale;

Quacking of wild ducks in the salty marsh,
Cries of the plover in their Southern flight;
Voice of the heron, wierdly loud and harsh,
Bob White's sweet note as fall the shades of night;

Barking of squirrels on a frosty morn,
The dropping nut's soft rustle 'neath our feet;
Chattering of jays with voices over-worn,
And merry song of thrush from his retreat.

Calls from the wild ring madly in our ears—
The incense of the woods we're drinking deep!
Clear purling streams with lulling music cheer,
And sportive trout in those cool shadows leap.

Away from noisome streets our paths now trend,
Nature absorbing where the sunlight gleams;
Here, where the willowy birches idly bend,
Dwell long; just o'er The Borderland of Dreams.

—*Edward Havens Goodnough.*

THE CALIFORNIA LION.

By L. R. Freeman.

PROBABLY no animal in America, large or small, is known under as great a variety of names as the cougar, or mountain lion of California. In the Northwest he is called the lion and "sneak-cat"; in the East and Southeast, panther and "painter"; in the Southwest and Mexico, Mexican lion; and in South America, puma and a variety of Spanish names. This assortment is possibly due, as in the case of his human brother, to his notoriously bad character; for it is a fact that the police dockets show that the criminal with the worst record is almost invariably the one with the greatest number of aliases. Certain it is, that his character is bad. Not the big, bluff, open badness of the grizzly, nor the cunning, half-playful badness of the fox, but a mean, sneaking, cowardly and aften vindicative and murderous badness that is entirely his own.

Almost impossible to hunt by stealth and to take unawares, he is himself the most stealthy of hunters, and never takes his prey but by surprise. He is admirably fitted to pursue and avoid pursuit. So soft of foot is he that he runs over the dried leaves of the cottonwood and sycamore without making a sound. He has none of the jerkiness of other quadrupeds in walking, but moves with a stealthy, gliding step that carries him on with the swift, smooth, undulating movement of a snake. Of a uniform color from tip to tip, save for a slight shading on back and belly, he presents little to distinguish him from the fawn and brown of the rocks and dead grass and leaves over which he preferably moves. But the greatest difficulty in the way of hunting him by ordinary methods lies in the fact that he almost never goes by day from his lair in a cave or thicket. Often, when he has gorged himself on a cow or deer, he will lie for three or more days, seeking neither meat nor drink. His ability to endure hunger and thirst is remarkable, particularly in the arid regions, where scarcity of water makes scarcity of prey. It is asserted by close observers that on the desert he will often go for over a week without food or water and show the lack of neither in his appearance.

On the western slopes of the Sierra Nevada Mountains, and in fact everywhere in California where the cougar makes his lair in striking distance of a settled country, he feeds principally upon stock killed and carried off from the foothill ranches. Young pigs are his choice, and it is due to his weakness for them that he is most often detected and shot. Owing to the fleshiness of a pig's neck, its wind is not so easily shut off in the grip of the powerful jaws as is that of many larger animals, and squeals and a commotion in the pig-pen will bring out the mountain rancher with his gun quicker than anything else. Lambs and calves also suffer heavily from cougars, and even the old animals are not exempt from his attacks. Where the animal killed is too heavy to carry off, the lion drinks his fill of blood, usually sucking from the jugulars in the throat. If there is not enough blood to satisfy him he will lunch further upon the carcass itself, picking about, and eating only the choice portions. Once leaving a carcass he rarely returns to it, except in seasons of scant food conditions, and many a lion-killed cow and deer is left for the coyotes to banquet upon.

Deer are usually killed from ambush, most often being sprung upon from a tree and borne down to their death, with a pair of cruel jaws biting through their spines before and the claws of an equally cruel pair of legs tearing them to ribbons behind. Deer are sometimes pursued in the open and, neither black-tail nor white-tail, nor even the fleet-footed antelope can escape the dash of a full grown male or female cougar. The latter's agility is no less than that of the cheetah, the famed Indian hunting leopard, and outweighing all members of the cat tribe with the exception of the lion and tiger, the impact from its spring is something tremendous. Two Wyoming hunters tell of seeing a full grown

buffalo cow knocked to the ground by an infuriated mother mountain lion, whose lair the latter had unwittingly approached. The buffalo succeeded in shaking off its assailant, which was shot by the hunters. In California the cougar is known to attack all kinds of big game, with the exception of the grizzly. A long-horned steer will over-match him, but an ordinary cow falls easy prey if the lion is hungry or fierce enough to persist in its attack. A big black-tail buck will make a good fight if his horns are out, but without them, or if they are only in the velvet, his shift is but short. In Montana and Wyoming, lions will occasionally attack elk, moose and mountain sheep. The males protect themselves without much difficulty, but females and young of all three are killed in great numbers. It is estimated, in fact, that in recent years, since the enforcement of the stringent game laws in these States, that more big game is killed by mountain lions than men.

As the cougar always hunts alone, except at mating time, it has not the opportunity to display the "team-work" in running down its quarry that has been observed in bands of coyotes. Rather, it must depend upon its own individual agility and strength. The latter, strange as it may seem from the build of the animal, is in proportion to the former. They have often been seen bearing off animals larger than themselves, sometimes carrying it in the mouth with the head held high, or if too heavy for that, slinging it back across the shoulder and trotting off in that way. Not long ago a rancher in San Luis Obispo County shot a female lion that weighed scarce a hundred and fifty pounds, that had killed and was carrying off a calf that weighed over two hundred. The plucky animal had covered two miles, all up-hill, with the carcass before she was shot, and just after starting with this burden she was seen to leap cleanly with it over a five-rail fence.

Scientists have declared that the wonderful agility of the members of the cat tribe is due to the unusual length and fineness of the fiber of their muscles, in both of which particulars they are said to infinitely surpass those of man or other animals. The stories told of the remarkable jumps made by cougars seem almost beyond belief, and many are no doubt grossly exaggerated. It is claimed that a lion, running from the hounds in the mountains back of Santa Barbara, leaped a clear eighty feet from the brink of one side of a ravine, which was perpendicular, to the other side which was on a slope. The flying animal struck on a slide of rock at a point estimated to be about twenty feet lower than the place from which it jumped, and was so much jarred that it fell in endeavoring to climb into an oak a few hundred yards farther up the mountain, and was torn to pieces by the dogs. The fact that this jump was down hill would make it seem like a possibility that eighty feet in a lineal direction was covered.

Almost all writers on the subject agree that cougars will not take the trouble to hunt small game, though they are occasionally said to feed on foxes and porcupines if nothing else offers. Chickens are generally considered immunes as far as the lions are concerned, and farmers only calculate on guarding against coyotes and wild cats. An exception to this rule, however, fell under my notice on a ranch in the Little Simi Valley in Ventura County last winter. The farmers were raising chickens and turkeys quite extensively, and with ten-foot meshed wire fences interlaced with barbed wire, and the boards of their houses covered also with the wire mesh, they felt confident that their poultry was safe against any four-footed creature that might come down from the rugged, brushy mountain to the north. But one night a great commotion was heard in the henhouse of one of the farmers, and the men rushed out to find several dozen dead chickens, the yard and house intact, and nothing to show what was responsible for the trouble. This was repeated several times, always at different ranches, and still no clew was gained as to what kind of a beast could get over a ten-foot fence without leaving some mark of its coming and going. Never once was a chicken found eaten, nor were feathers found near by to indicate that any had been carried off. The animal seemed to simply run amuck and claw and bite the terrified poultry for its own pleasure. Finally, the farmers took to covering with wire the portion of their henhouses inside the fence, as they had done with the exposed sides, and the depredations ceased.

About this time I was spending a week at one of the ranches, hunting quail. One

A TUOLUMNE SPECIMEN.

night, just as we had put out the lights, we heard the family dog, a young setter, come whimpering across the yard and scratch and whine at the back door. A moment later there came a thump and a crash from the chicken coop, and then a bedlam of squawks and cackles, rising above the sound of a hundred and fifty pair of wings, flopping and beating against the sides and roof of the little building. We were still dressed, and seizing my shotgun I burst out of the door, closely followed by the farmer and his son. The moon was more than three-quarters full and shone brightly on the seat of war, revealing almost at once a board ripped from its place on the side of the coop that opened into the wire-fenced yard. As I rushed up to the fence, out of this opening shot a long, yellow body and, without seeming to touch the ground, flew full into the side of the doubly staked and braced wire netting. The wire threw it off like a catapult, and it darted back into the screaming din of the coop, and I heard it land with a thump against the side. Out it came again, wild with terror, and this time I gave it both barrels of No. 6 through the wire. Bang! Bang! boomed the farmer's gun behind me, and bang! bang! and again bang! exhausted the half-filled magazine of the boy's pump-gun — seven charges of bird shot in all, fired at under ten feet. Once more the gleam of yellow flashed against the wire, and once more it was sent sprawling. Then it came straight at us, and we all beat a hasty retreat while it flattened itself against the wire and bit and clawed desperately at the unyielding meshes. Suddenly the roving yellow eyes caught sight of the top of the hen coop, and it dropped back to the ground, crouched for a moment, and then went sailing—no other word quite does justice to that easy leap—off, and out, and back to the hills.

There was a big hunt next day, in which the whole countryside joined, but the midnight marauder was never again even sighted. It had evidently entered the yard by jumping over the coop, and in its efforts to enter the latter had clawed off a loose board. When discovered it was unable, in its fright, to locate the top of the wire to jump at, and as a consequence spent a disagreeable minute or two in the yard. Why the shot, small as it was, did not have more effect at the close range, I am at a loss to understand, unless it was that most of it, owing to our excitement, went wild. I once saw a dog accidentally killed with a charge of rocksalt at about the same distance at which we shot at the lion, and unless we shot wide of our mark he must certainly have been sorely wounded, which apparently he was not. About thirty of the chickens were killed in the brief space that the lion was in the coop. The latter was about twenty feet square and ten feet high, and I have often thought since what a fine chance the biograph people missed in not being able to expose a film on that fiend of a lion as he raged around and lashed about him in that almost solid mass of fluttering fowls.

As to the cry of the cougar. There is a widespread idea that it resembles the cry of a child in distress. I have heard the cry of the animal on a dozen occasions in half as many different sections of the country, and if the popular belief is well founded I will only say that the child must be in very great distress, and deliver me from a nursery full of them. The cry is really as piercing as the sound made by an electric car rounding a sharp and insufficiently greased curve, and is almost as loud. The sound is of about the same quality as the wail of an ordinary tomcat on his nocturnal rounds, and bears about the same ratio in volume to the cry of the latter as its maker does to the tom in size. Any fear it will engender, however, must be imaginary, for danger to man from a cougar there is none.

SHOT ON MT. SAN BERNARDINO.

This brings up the question as to whether or not the cougar will attack a man unprovoked. There are practically no well authenticated cases to show that it will. An instance is cited of a negro that was killed in Mississippi many years ago by a panther, and in Montana and Wyoming one often hears tales of lions following lone travelers for miles and finally circling ahead, ambushing and killing them. It is difficult to trace one of these stories down, though it is a common occurrence for a cougar to dog a man's footsteps and approach quite near him if the country is rough or brushy. A butcher in Calaveras County, in this State, was once carrying a quarter of beef behind him on his horse as he rode from one town to another just at dusk. Suddenly there was a rush from the roadside and a cougar sprang upon the meat, and by its own weight and through the plunging of the frightened horse, succeeded in dragging it to the ground. As soon as the intrepid butcher could rein in his horse he returned to the spot of the attack and dispatched the foolish brute, who steadfastly refused to leave its plunder, with his revolver. The animal proved to be a young one, hardly more than half grown, and had not yet learned when and where to fear. There probably are cases where men have been attacked by cougars, but they are not numerous enough to more than prove the rule to the contrary. The fact that the animals so often follow on man's trail is most likely due to an inherent desire for bloodshed that is somewhat more than neutralized by an inherent cowardice.

I once, inadvertently, gave one of the brutes ample chance for an attack, had it been so minded, and though I should not care to go through the experience again, I have no doubt that the result would be the same. My ideas on the subject were not as firmly fixed at the time of the incident as they are now, and as a consequence I experienced a very bad quarter hour. It happened up in the King's River Cañon in the early spring of ninety-eight, just at the time when the last of the season's storms come in rains in the valley, hail and sleet in the foothills and lower spurs, and solid snow beyond. I was camped in the cañon, well inside the boxed-in stretch. The cook had deserted a week before and my companion, an amateur botanist of some note from Iowa, had gone out to Visalia for a few days to settle by telegraph some business that needed his attention in the East. I was alone, and enjoying a royal time with rod and reel in the pools and riffles of this splendid trout stream.

Late one afternoon the air became close and stuffy, the breeze died out and great black clouds came wheeling down from Brewer and Whitney. Soon the thunder began to roll and rumble among the crags and echo with deep reverberations through the cañon, and the lightning flashed in vivid glare and shot in zigzag lines from cliff to cliff. Then the rain came in torrents. I retreated, supperless, into the tent, which was under the tallest and thickest pine on a little bench at a bend of the river. The thunder roared louder than ever, and pulling in the tent flap, I looked out. The lightning was leaping from pole to pole and the heavens were fairly ablaze. Suddenly it occurred to me that lightning always struck the tallest trees, and, grabbing my arms full of blankets, I rushed out into the rain, not stopping till I was in a clear space, well beyond the range of the big pine. Then I rolled up in the blankets—there must have been half a dozen of them—one after the other, making a big, half-soaked bundle, almost as high as it was long. My arms, head and shoulders were out of the main bundle, but I protected them somewhat with the loose end of the last blanket.

In half an hour the rain ceased and the heavens began to clear, but the thunder and lightning were still busy and I was afraid to trust myself in the tent. I was just getting ready to unroll, and was congratulat-

ing myself on not being entirely wet through, when out of the darkness beyond the end of the blankets came an ear-splitting yell. I had never heard the cougar's voice up to that time, but I wasn't deceived in it for a second. It is at this stage in the story-book tales of cougars that the lone but kind-hearted traveler usually starts out with the condensed milk can to succor the distressed child. Brute that I was, I felt no such impulse. I knew the distressed child was there, but I also knew that it was wrapped about eighteen inches thick in the best product of the American Woolen Company, and I was loth to expose it to the elements.

Twice more sounded the cry, and twice more I refused to go on the errand of mercy. It seemed to be coming nearer, though the first time I would have sworn it was right upon me. Again the shriek; this time so near that I thought the blankets vibrated in sympathy. A moment later I realized that my knees were responsible for the latter phenomena. Then for several minutes I waited and trembled. I wondered if he would begin at my feet and eat me up by inches, or mercifully kill me first by beginning at my head. At last my ears, strained to catch the slightest sound, detected his step, as his cushioned feet were drawn, one after the other, from the sticky mud. Then he crept into my range of vision. "Thank heaven, it will be the head," I thought, and waited for him to come. I could hardly make out the dark outline of his body, and the fiery, vitreous eyes seemed moving all alone. Now they passed behind me and out of my range of vision, but still the spring was not made. Now they gleamed on my right, still moving around me in a circle. Now they disappeared beyond my horizon of blanket, and I realized that the worst was to happen—I was to be eaten from the feet upward. Then the overwrought nerves gave way and the whole chest-full of air that I had been holding so long went ripping out through my vocal chords in one wild yell. That was the true cry of the distressed child. Would no one come to its aid?

As if in answer to my call I heard someone breaking through the brush at top speed and my heart beat high with hope. Then I perceived that the sounds were retreating. My preserver had seen the lion and had turned back. All I suffered in the next ten minutes I will not attempt to describe, but at length, reassured by the silence, I rolled out from my blankets and found myself alone. The cougar had evidently had no idea that the funny looking bundle contained a man, and must have fled at the sound of my voice. The beast certainly missed the chance of his life by his flight, for I doubt very much if a young, fairly fat, and altogether eatable man was ever laid out quite so helplessly under the nose of a hungry cougar.

As to hunting the cougar in California, or any where else for that matter, the only satisfactory method is to run it down with dogs, tree and shoot it. Even this can hardly be called a satisfactory method, for unless the hounds can be put on a hot trail, they will usually lose it for that of a bob-cat, coon or coyote. Most of the cougars killed in California have been run down while the dogs were out on the scent of a wild cat or coyote. Some few have been ambushed and killed by mountain ranchers, and a number have been slain by quick snap shots in chance encounters. They are found more generally through the State than any other kind of big game, and though their killing is encouraged by a heavy bounty, they are holding their own better than the deer, protected, as the latter are, by the most stringent laws. If there comes a time when the game of the country is extinct it will be pretty safe to venture that the cougar will be the last species to succumb.

WESTERN FIELD.

The Sportsman's Magazine of the West.

OFFICIAL ORGAN
OLYMPIC ATHLETIC CLUB AND THE CALIFORNIA FISH AND GAME PROTECTIVE ASSOCIATIONS.

PUBLISHED MONTHLY BY
THE WESTERN FIELD CO., (Incorporated)
SAN FRANCISCO, CAL.

Offices; 4 Sutter Street, corner Sansome Street.
Telephone, Main 1262.

Registered at the San Francisco Postoffice as Second-Class Matter.

FRANK H. MAYER, - - - - Managing Editor

Matter for publication should be addressed "WESTERN FIELD," 4 Sutter Street, San Francisco, Cal., and not to individuals connected with the magazine. All copy for new advertisements, changes or discontinuances, must be in hand not later than the 10th of the month preceding date of issue, in order to insure attention.

GAME REFUGES.

IT IS to be sincerely hoped that the Federal government will meet with the hearty support and co-operation of all the States and counties in the Union in its efforts to establish places of refuge for wild game, wherein the latter may be permitted to breed and increase without molestation.

The need of such sanctuaries grows more imperative every day, and the American people are fast awakening to that fact. While it is lamentably true that here and there an apathetic community lies sluggishly yawning at its self-despoliation of a very valuable asset, it may be logically assumed that the degree of game protection obtained in any section is the actual measure of that section's intelligence and thrift.

It is a matter of vital necessity if the best results are to be obtained, that the intelligence and good judgment of local sportsmen supplement that of the Federal authorities in arriving at the selection of the best tracts for sanctuary purposes. Left to themselves in such matters Uncle Sam's representatives have for various reasons, explicable and otherwise, failed in the past to display the acumen that should logically invest them. Without entering into any further discussion of the whys and wherefores we insistently urge that each State and county canvass its own natural resources and make recommendation to the Department of the Interior of such tracts as are the most likely to subserve the purpose intended.

Another point of equal importance is that the States in which such refuges are established should have full jurisdiction over the tracts so segregated. There should be incorporated in the laws of each State a clause perpetually closing the season on all game within the bounds of such refuges. The Federal authorities have so far not signally distinguished themselves in the protection of game even in the prominent national parks and besides, States are, not unnaturally, loth to delegate their authority to those who can not or will not improve the investment.

The sanctuary system is the only one that can be depended upon to maintain our game supply, and we predict that every advanced community will confirm this in the near future by indorsing it and co-operating with the general government in the establishment of refuges and the stringent enforcement of the laws that make them sanctuaries.

TAKE IT UP HIGHER.

IF IT be true that errors, when once proven such, are the surest stepping stones to Truth, then to his honor Judge De Haven of the United States District Court is due the thanks of every American sportsman.

For the learned gentleman has indubitably supplied a stepping stone of this kind in his recent decision that the State courts have no jurisdiction over the game which curiously enough has been declared by the highest American tribunal, the United States Supreme Court, to be the property of the people of the State in which it exists. It is hard to reconcile the differences of opinion which obtain between Judge De Haven and his official superiors in this connection. If the Supreme Court decision amounts to anything, who but the people of the State, through their established courts, have jurisdiction over this, their own property? The Federal government concededly has none, for there is no such thing as a Federal game law. Is the irresponsible Indian then, the sole arbiter of his own shortcomings, or has the power been delegated to every grafting political parasite who has erupted to the prominence and distinction of reservation agent?

Under this opinion there can be no legal restriction of the slaughter of game on any United States government reservation by either white, red, yellow, black or brown game hogs, because there can be no legal prosecution of the parties to such slaughter. This does not accord very well with the announced policy and intention of Federal authorities in the matter of establishing game sanctuary reservations in many States. How will sanctuary be preserved in such cases if Judge De Haven's opinion is sustained? It is to be hoped that the State Game and Fish Commission will not let the matter rest at this first rebuff. There are higher tribunals and we need their views in the matter. In the expressive language of the street, "it don't pay to get cold feet at any stage of the game." The possibility that the higher courts may reverse Judge De Haven's opinion is worth trying for. Let an appeal be made at once. There is a vital principle concerned, and we want the real law in the case.

A MUNICIPAL REPROACH.

IF THERE is one avocation which more than any other marks the sharp distinction between sportsmen and "sports" it is that degraded and brutalizing "recreation" —God save the word!—known as inclosed coursing.

What is that foul quantity in human nature which incites animals created in God's own image to lend themselves to such practices of unspeakable bestiality as are daily exercised at Ingleside! This is supposed to be an age of enlightenment and refinement—a sort of midway station between the barbarism of the dark Past and the millenium of the radiant Future—and yet if there be a man or woman on earth to-day to whose cheeks would not rise the flush of shame and horror at view of the atrocities perpetrated at these unholy orgies of cruelty and depravity we are sorry for them.

Just why the authorities have countenanced and continue to countenance such an evil in our midst is one of the things inexplicable to any normally minded man. The whole business is simply a gambling proposition of the most vicious type and vitiating character. It is devoid of any pretensions to sport and has nothing in its sodden brutality to recommend it to any save the lowest and most degraded types of humanity. As an exhibition of insensate cruelty it is without a parallel, the conscienceless slaughter of the tortured rabbits being regarded as merely an incident to the vile ends of the petty gamblers who patronize and conduct these shameful affairs. Let no one dare to insult the intelligence of sportsmen by comparing this loathsome betting on murder to the clean and fair sport of coursing in the open. In open coursing the hare has more than an even chance for his life, but in this indoor bestiality he has not the shadow of one. He is released to be killed and the whole perverted "interest" is in the betting how certainly this can be done by dogs specially trained for the purpose.

That the commendable efforts of the Humane Societies to stop this disgusting evil have been shamelessly repulsed by our local authorities is a matter of reproach to every San Francisco citizen. Is there no way by which these official connivers at our shame may be compelled to do their sworn duty? Or is the pandering to a few sots and trulls of more vital import to our people than the enforcement of the laws enacted for the benefit of decent, clean-thinking humanity?

A REMARKABLE ACHIEVEMENT.

GLORY, which is akin to if not synonomous with fame, is, like the latter quantity, sometimes attained at a single effort. Such has been the remarkable achievement of one P. M. Essig and his brace-mate L. W. Blankenberger, who recently cojointly officiated as judges in the United States Field Trial Club's fifteenth annual trials at Grand Junction, Tenn. Their dropping of Pioneer entirely from the Derby Stake, and the placing of Mohawk over Peach Blossom in the All-Age, will go down in the annals of field-trial history as the most audacious and brilliant display of probity and erudition ever made by men who ostensibly knew a field-trial dog from a rutabaga.

We do not concur in the unanimous conclusion of all Eastern contemporaries and sportsmen that these thrice glorified judges were "off" in their decisions; on the contrary, we fully believe that they were properly "on" to their job, and that they got value received for their noble work. Be that as it may, one thing is sure: they have achieved fame by the firkinful and have covered themselves with glory as with a garment.

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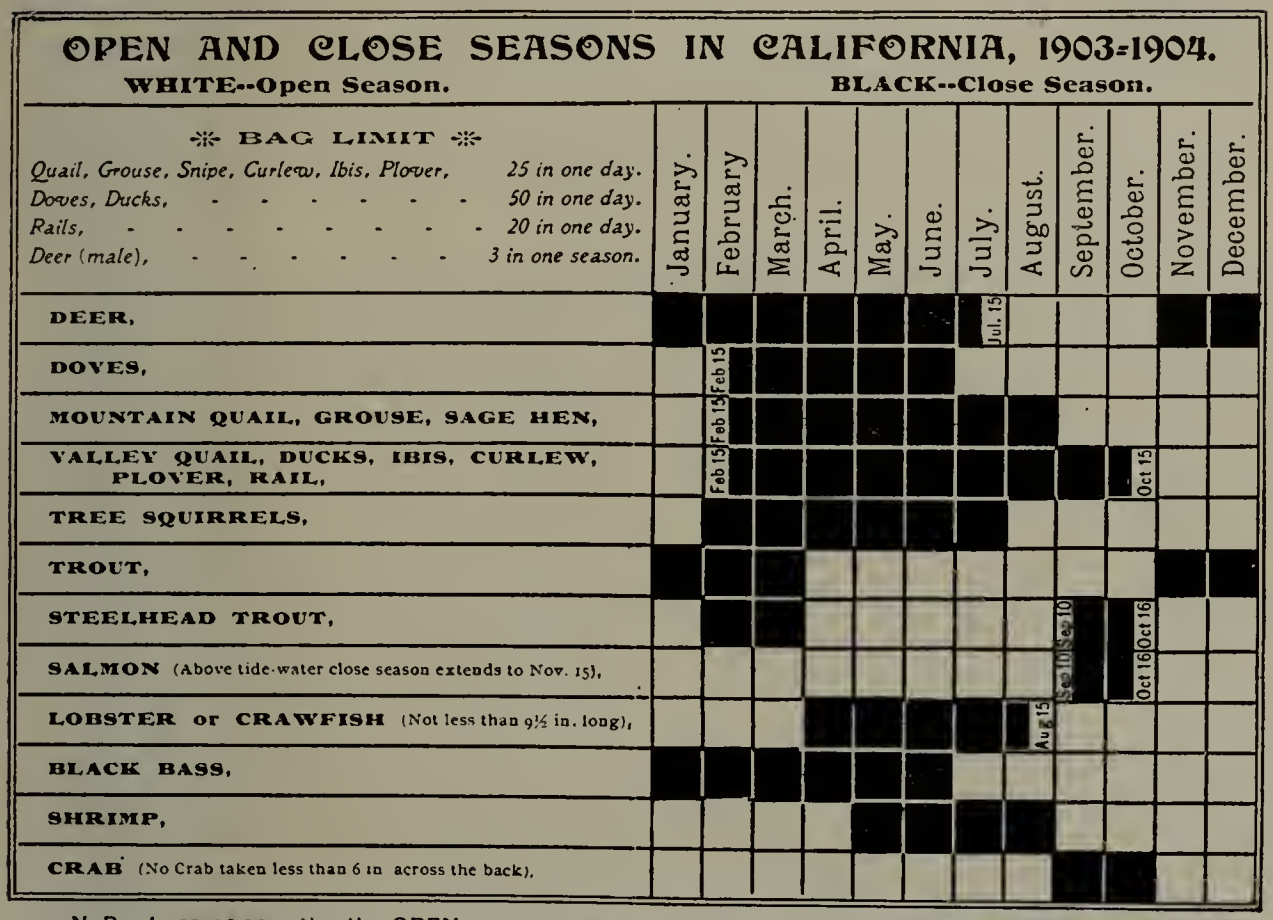
THE CALIFORNIA GAME LAWS IN BRIEF

(Compiled by Charles A. Vogelsang, Chief Deputy, State Board of Fish Commissioners.)



N. B.--In some counties the OPEN seasons are shorter
Write to County Clerk or District Attorney.

Fine for violation Game Laws, $25 to $500, and imprisonment.
Fine for violation Fish Laws, $20 to $500, and imprisonment.
Smallest fine for using explosives to take any fish, $250, and imprisonment.

WHAT IS ALWAYS UNLAWFUL

TO BUY, SELL, OFFER FOR SALE, BARTER OR TRADE, AT ANY TIME, ANY QUAIL, PHEASANT, GROUSE, SAGE HEN, IBIS, PLOVER, OR ANY DEER MEAT OR DEER SKINS.

To have in possession doe or fawn skins.
To take or kill, at any time, does, fawns, elk or antelope.
To take or kill pheasants, or Bob-White quail.
To run deer with dogs during the close season.
To shoot half-hour before sunrise, or half-hour after sunset.
To trap game of any kind without having first procured *written* authority from the Board of Fish Commissioners.
To take or destroy nests or eggs of game birds.
To ship game in concealed packages, or *without* your name and address.
To *buy* or *sell trout* less than *one-half pound* in weight.
To take, at any time, sturgeon, or female crabs.
To take abalones less than fifteen inches in circumference.
To take trout or black bass, except with hook and line.
To take salmon, shad or striped bass with a net less than seven and one-half inch mesh.
To use a set net.
To take fish, in any manner, within fifty feet of a fishway.
To take, buy, or sell striped bass less than three pounds in weight.
To shoot meadow larks.
To shoot on enclosed land without permission.

COUNTY ORDINANCES.

BY LEGISLATIVE enactment the various Boards of Supervisors have, in their respective counties, jurisdiction and power to provide, by ordinances not in conflict with the general laws of the State, for the protection of fish and game, and may shorten (but not extend) the open season for the taking and killing of fish and game within the dates fixed by the general State law.

The ordinances as published below are, so far as we can ascertain, correct; changes are, however, liable to occur from time to time, necessitated by new conditions, and we will make such corrections when they eventuate. If in any doubt, please address this office, and information will be gladly given. Where counties are not enumerated in the following list, it is to be understood that no departure from the general State law has been adopted.

El Dorado.—Male deer, September 1 to November 1; tree squirrel, August 1 to October 1; trout in Lake Tahoe and Loon Lake, June 1 to November 1.

Fresno.—Doves, August 15 to February 1; quail, November 1 to February 1; male deer, September 1 to November 1.

Humboldt.—Trout, May 1 to November 1; striped bass, closed until January 1, 1905; barnacle or black brant, October 1 to March 1; Wilson or jack snipe, September 1 to February 15; English or Mongolian pheasant and wild turkey, closed until January 1, 1906; ducks, limit of 25 per day; black sea brant, limit of 8 per day; miscellaneous bag of game birds, not to exceed 40 in number per day's shoot.

Kern.—No game to be shipped out of county.

Kings.—Doves, September 1 to February 15; quail, November 1 to February 15; deer, September 1 to November 1; black bass closed for two years; limit on ducks, 25 per day.

Lake.—Male deer, July 15 to September 15.

Los Angeles.—Doves, August 1 to September 1; male deer, July 15 to September 15; trout, May 1 to August 1.

Madera—Doves, August 15 to February 1; valley quail, November 1 to February 1; male deer, September 1 to November 1; ducks, limit 25 per day; duck selling prohibited; trout limit 10 pounds per day, size limit, 6 inches; black bass, closed for two years.

Marin.—Male deer, July 15 to September 15; doves, August 1 to February 15; quail, October 15 to January 15; tree squirrels, July 1 to February 1. Shooting on county roads prohibited. Killing of larks and other song birds prohibited.

Mendocine.—Male deer, July 15 to October 1.

Merced.—Doves, August 15 to February 15.

Monterey.—Deer, July 15 to October 1. No bounds. Sea gulls and blue cranes prohibited.

Napa.—Deer, July 15 to September 15.

Orange.—Doves, August 1 to February 15.

Riverside.—Male deer, August 1 to September 15; trout, May 1 to July 1.

San Benito.—Male deer, August 1 to October 1.

San Bernardino.—Trout, June 1 to November 1; tree squirrels, limit 5 in one day; doves, August 1 to October 1; wild duck, trout or dove selling prohibited.

San Mateo.—Cottontail and bush rabbit, July 1 to February 1; rail, October 15 to November 16. Rail hunting with boats one hour before or after high tide prohibited. Male deer, August 1 to October 1; trout, limit 100 per day; tree or pine squirrels, prohibited. Song birds protected perpetually.

Santa Barbara.—Male deer, July 15 to September 15.

Santa Clara.—Male deer, July 15 to October 1.

Santa Cruz.—Male deer, August 1 to October 1. All wild birds (other than those recognized as game birds in general law), *except* hawks, owls, bluejays, shrikes, English sparrows and house-finches, are perpetually protected, as are likewise all species of tree squirrels. Black bass cannot be caught before January 1, 1907. Trout limit in one day, 100.

Siskiyou.—Deer, August 15 to October 15.

Sonoma.—Male deer, July 15 to September 1.

Trinity—Male deer, September 15 to October 30.

Tulare.—Trout limit, 10 pounds per day, 6-inch fish; black bass, closed for two years; road-runner killing prohibited.

Tuolumne.—Mountain quail, south of ranges 13, 14, 15 and 16 east, township 3 north, and west of townships 1 and 2, north, and township 1 south range 7 east, October 15 to February 15.

Ventura.—Trout, May 1 to November 1; male deer, August 15 to October 1.

Yolo.—Doves, August 1 to February 1; quail, November 1 to January 1; deer, July 15 to September 15.

Close Seasons for Game in the United States and Canada.

(Date of close season and the first date of open season are given; to find open season, reverse dates.)

		MAMMALS.						BIRDS.			
	STATE.	DEER.	ELK.	MOOSE, CARIBOU.	ANTELOPE.	SQUIRREL.[5]	RABBIT.	QUAIL.	GROUSE.	PRAIRIE CHICKEN.	WILD TURKEY.
NORTHERN.	Maine	Dec. 15-Oct. 1[1]		Dec. 1-Oct. 15[16]			Apr. 1-Sept. 1	At all times	Dec. 1-Sept. 16		
	New Hampshire	At all times[4]	At all times	At all times		Jan. 1-Sept. 15	Apr. 1-Oct. 1	Dec. 15-Sept. 16	Dec. 15-Sept. 15		
	Vermont	Nov. 1-Oct. 22		At all times			May 1-Sept. 1	Jan. 1-Sept. 1	Jan. 1-Sept. 1		
	Massachusetts	To Nov. 1, 1903				Mar. 1-Oct. 1	Mar. 1-Oct. 1	Dec. 1-Oct. 1[1]	Dec. 1-Oct. 1		
	Rhode Island	To Feb. 1, 1905				Jan. 1-Oct. 15	Jan. 1-Oct. 15	Dec. 16-Oct. 15	Dec. 16-Oct. 16		
	Connecticut	To June 1, 1911				Dec. 1-Oct. 1	Jan. 1-Oct. 1	Dec. 1-Oct. 1	Dec. 1-Oct. 1		
	New York[1]	Nov. 16-Sept. 1	At all times	At all times	At all times	Dec. 1-Sept. 16	Dec. 16-Sept. 16	Dec. 1-Nov. 1	Dec. 1-Sept. 16		
	Long Island	Except 4 days Nov.				Jan. 1-Nov. 1	Jan. 1-Nov. 1	Jan. 1-Nov. 1	Jan. 1-Nov. 1		
	New Jersey	To April 14, 1905				Jan. 1-Nov. 10	Jan. 1-Nov. 10	Jan. 1-Nov. 10	Jan. 1-Nov. 10	Jan. 1-Nov. 10	Jan. 1-Nov. 10
	Pennsylvania	Dec. 1-Nov. 1	Dec. 1-Nov. 1			Dec. 16-Oct. 15	Dec. 16-Nov. 1	Dec. 16-Oct. 16	Dec. 16-Oct. 15	Dec. 16-Oct. 15	Dec. 16-Oct. 15
	Delaware						Jan. 1-Nov. 15	Jan. 1-Nov. 15	Jan. 1-Nov. 15		
	Maryland[1]	Local laws				Dec. 1-Sept. 1	Dec. 25-Nov. 1	Dec. 25-Nov. 1	Dec. 25-Nov. 1		Dec. 25-Nov. 1
	Dist. Columbia	Jan. 1-Sept. 1[8]				Feb. 1-Nov. 1	Feb. 1-Nov. 1	Mar. 15-Nov. 1	Dec. 26-Nov. 1	Mar. 15-Sept. 1	Dec. 26-Nov. 1
	Virginia	Jan. 1-Oct. 1						Feb. 1-Nov. 1[20]	Feb. 1-Nov. 1[20]		Feb. 1-Nov. 1[20]
	West Virginia	Dec. 15-Oct. 15				Jan. 1-Sept. 15	Jan. 1-Sept. 15	Dec. 20-Nov. 1	Dec. 15-Oct. 15	Dec. 15-Oct. 15	Dec. 15-Oct. 15
	Kentucky	Mar. 1-Sept. 1				Feb. 1-June 15		Jan. 1-Nov. 15	Jan. 1-Nov. 15		Feb. 1-Sept. 1
	Ohio	Dec. 16-Nov. 10				Sept. 2-Aug. 1	Dec. 2-Nov. 10	Dec. 2-Nov. 10	To Nov. 10, 1904	To Nov. 10, 1904	Dec. 2-Nov. 10
	Michigan	Dec. 1-Nov. 8[1]	To 1914	To 1911		Dec. 1-Oct. 15		Dec. 1-Oct. 20[18]	Dec. 1-Oct. 20[18]	To 1910	To 1910
	Indiana	At all times				Jan. 1-Aug. 1[19]		Jan. 1-Nov. 10	Jan. 1-Nov. 10	Jan. 1-Nov. 10	At all times
	Illinois	To 1913				Jan. 1-July 1		Dec. 20-Nov. 10	To 1907	To 1907	To 1908
	Wisconsin	Dec. 1-Nov. 11[1]				May 1-Sept. 1	May 1-Sept. 1	To Sept. 1, 1905	Dec. 1-Sept. 1	Dec. 1-Sept. 1[1]	
	Minnesota	Dec. 1-Nov. 11	At all times	Dec. 1-Nov. 11				Dec. 15-Oct. 15	Dec. 15-Oct. 15	Nov. 1-Sept. 1	
	Iowa	At all times	At all times			Jan. 1-Sept. 1		Jan. 1-Nov. 1	Jan. 1-Nov. 1	Dec. 1-Sept. 1	Jan. 1-Nov. 1
	Missouri	Jan. 1-Oct. 1						Jan. 1-Nov. 1	Jan. 1-Nov. 1	Jan. 1-Nov. 1	Jan. 1-Nov. 1
	Kansas				To Mar. 13, 1903			Jan. 1-Nov. 15[21]	Oct. 1-Aug. 15	Oct. 1-Aug. 15[21]	
	Nebraska	Nov. 16-Aug. 15	At all times		Nov. 16-Aug. 15			Dec. 1-Nov. 1	Dec. 1-Oct. 1	Dec. 1-Oct. 1	At all times
	South Dakota	Dec. 15-Nov. 15	Dec. 15-Nov. 15		To Jan. 1, 1911			Jan. 1-Sept. 1	Jan. 1-Sept. 1	Jan. 1-Sept. 1	
	North Dakota	Dec. 1-Nov. 10	At all times	At all times	To Jan. 1, 1911			To Sept. 1, 1905	Oct. 15-Sept. 1	Oct. 15-Sept. 1	
	Montana	Dec. 1-Sept. 1	Nov. 1-Sept. 1	At all times	At all times			At all times	Dec. 1-Aug. 15	Dec. 1-Aug. 15	
	Wyoming	Nov. 15-Sept. 15	Nov. 15-Sept. 15	To Sept. 15, 1912[10]	Nov. 15-Sept. 15			At all times	Oct. 15-July 15	Dec. 1-Sept. 1	
	Colorado	Oct. 1-Sept. 15	To 1907		To 1907			To Oct. 1, 1920[13]	Oct. 21-Sept. 1	Oct. 21-Sept. 1	To 1907
SOUTHERN.	North Carolina[1]	Jan. 1-Oct. 1				Local laws		Mar. 15-Nov. 1			Mar. 15-Nov. 1
	South Carolina	Feb. 1-Sept. 1[1]						Apr. 1-Nov. 1	Apr. 1-Nov. 1		Apr. 1-Nov. 1
	Georgia[4]	Jan. 1-Sept. 1						Mar. 15-Nov. 1	Mar. 15-Nov. 1		Mar. 15-Nov. 1
	Florida	Feb. 1-Nov. 1						Mar. 1-Nov. 1			Mar. 1-Nov. 1
	Alabama[4]	Jan. 1-Sept. 1				Feb. 2-July 1		Mar. 2-Nov. 15	Mar. 2-Nov. 15	Mar. 2-Nov. 15	Mar. 2-Nov. 15
	Mississippi	Mar. 1-Sept. 15						May 1-Oct. 1			May 1-Oct. 1
	Tennessee	Dec. 15-Oct. 1				Mar. 1-June 1		Mar. 1-Nov. 1	Mar. 1-Nov. 1		Mar. 1. Nov. 1
	Arkansas	Feb. 1-Sept. 1[1]						Feb. 15-Nov. 1[1]		Dec. 1-Oct. 31	May 1-Sept. 1
	Louisiana	Apr. 1-Nov. 1					Apr. 1-Nov. 1	Apr. 1-Nov. 1	Mar. 1. Nov. 1	Mar. 1-Nov. 1	Apr. 1-Nov. 1
	Texas	Jan. 1-Nov. 1			To July 1, 1903			Feb. 1-Nov. 1		Feb. 1-Nov. 1	Feb. 1-Nov. 1
	Oklahoma	At all times			At all times			Feb. 1-Oct. 15	At all times	Jan. 1-Sept. 1	Jan. 1-Sept. 1
	New Mexico	Jan. 1-Nov. 1	To Mar. 7, 1905		To Mar. 7, 1905			Mar. 1-Oct. 1	Jan. 1-Oct. 1	Jan. 1-Oct. 1	Jan. 1-Oct. 1
	Arizona	Nov. 1-Sept. 15	At all times		To Jan. 1, 1906			Mar. 1-Oct. 15	Mar. 1-Oct. 15		Nov. 1-Sept. 15
PACIFIC.	California[1]	Nov. 1-July 15	At all times		At all times	Feb. 1-Aug. 1		Feb. 15-Oct. 15[7]	Feb. 15-Sept. 1		
	Nevada	Nov. 15-Sept. 15	At all times	At all times[16]	Nov. 15-Sept. 15			Mar. 1-Sept. 15	Mar. 1-Sept. 15	Mar. 1-Sept. 15	
	Utah	Nov. 1-Sept. 1	At all times		At all times			At all times[1]	Dec. 1-Aug. 15	Dec. 1-Aug. 15	
	Idaho	Jan. 1-Sept. 1	Jan. 1-Sept. 1	At all times	Jan. 1-Sept. 1			Dec. 1-Nov. 1	Dec. 1-Aug. 15	Dec. 1-Aug. 15	
	Washington	Dec. 15-Sept. 15	Nov. 1-Sept. 15	Nov. 1-Sept. 15	Nov. 1-Sept. 15			Jan. 1-Oct. 1[1]	Jan. 1-Sept. 1	Jan. 1-Sept. 1[1]	
	Oregon	Nov. 1-July 15[1]	To Sept. 15, 1904	Nov. 1-July 15[11]	Nov. 1-July 15[1]	Jan. 1-Oct. 1		Dec. 1-Oct. 1	Dec. 1-Oct. 1	Dec. 1-Oct. 1	To Oct. 1, 1905
	Alaska	Dec. 16-Sept. 1		Nov. 1-Sept. 1[1]				Dec. 16-Sept. 1	Dec. 10-Sept. 1		
	Hawaii							Mar. 1-Sept. 16			
CANADA.	British Columbia	Dec. 15-Sept. 1	Jan. 1-Sept. 1	Jan. 1-Sept. 1			Jan. 1-Sept. 1	At all times	Jan. 1-Sept. 1	Jan. 1-Sept. 1	
	N.W. Territories[12]	Dec. 15-Nov. 1	Dec. 15-Nov. 1	Dec. 15-Nov. 1	Dec. 15-Nov. 1				Dec. 15-Sept. 15	Dec. 15-Sept. 15	
	Manitoba	Dec. 15-Nov. 15	Dec. 15-Nov. 15	Dec. 15-Nov. 15	Dec. 15-Nov. 15				Nov. 15-Sept. 15	Nov. 15-Sept. 15	
	Ontario	Nov. 16-Nov. 1	At all times	Nov. 16-Oct. 16[17]		Dec. 16-Sept. 15	Dec. 16-Sept. 15	Dec. 1-Nov. 1	Dec. 16-Sept. 15	To Sept. 15, 1905	Dec. 1-Nov. 1
	Quebec	Jan. 1-Sept. 1[1]		Jan. 1-Sept. 1[1]			Feb. 1-Nov. 1[1]		Dec. 15-Sept. 1[1]		
	New Brunswick	Dec. 1-Sept. 15		Dec. 1-Sept. 15[1]					To May 9, 1905		
	Nova Scotia	To Oct. 1, 1905		Jan. 1-Sept. 15[19]			Feb. 1-Oct. 15		Dec. 1-Oct. 1[4]		
	Newfoundland		To Jan. 1, 1912	Feb. 1-Oct. 21[19]			Mar. 1-Sept. 16		Jan. 12-Sept. 16		

	STATE.	BIRDS. DOVE.	INTRODUCED PHEASANT.	PLOVER.	SNIPE.	WOODCOCK.	RAIL.	DUCK.	GOOSE, SWAN.
NORTHERN.	Maine	At all times	To Mar. 22, 1911	May 1-Aug. 1	May 1-Aug. 1	Dec. 1-Sept. 15		Dec. 1-Sept. 1[1]	
	New Hampshire	At all times	To Sept. 15, 1905	Dec. 15-Sept. 1[1]	Dec. 15-Sept. 15[1]	Dec. 15-Sept. 15	Feb. 1-Aug. 1	Feb. 1-Aug. 1[9]	
	Vermont	At all times	Nov. 20-Oct. 1	Jan. 1-Sept. 1[4]	Jan. 1-Sept. 1	Jan. 1-Sept. 1		Jan. 1-Sept. 1	Jan. 1-Sept. 1[11]
	Massachusetts	At all times	To Feb. 13, 1905	Mar. 1-July 15	Mar. 1-July 15	Dec. 1-Oct. 1	Mar. 1-July 15	Mar. 1-Sept. 1[9]	
	Rhode Island	At all times	To Oct. 1, 1905			Dec. 10-Oct. 15		Apr. 1-Aug. 15[4]	
	Connecticut	At all times	To June 1, 1906	Apr. 1-Sept. 1	May 1-Aug. 1	Dec. 1-Oct. 1	Apr. 1-Sept. 1[1]	May 1-Sept. 1	May 1-Sept. 1
	New York[1]	At all times	To 1905	May 1-Sept. 1	May 1-Sept. 1	Dec. 1-Sept. 16	May 1-Sept. 1	Jan. 1-Sept. 10	Jan. 1-Sept. 16
	Long Island	At all times	Jan. 1-Nov. 1[1]	Jan. 1-July 1	Jan. 1-July 1	Jan. 1-Aug. 1	Jan. 1-July 1	Jan. 1-Oct. 1	Jan. 1-Oct. 4
	New Jersey	At all times	Jan. 1-Nov. 10	Jan. 1-July 15[3]	Jan. 1-Sept. 1	Jan. 1-Oct. 1[5]	Jan. 1-Sept. 1	May 1-Oct. 1	May 1-Oct. 1
	Pennsylvania		Dec. 16-Oct. 15	Jan. 1-July 15[6]		Dec. 16-Oct. 15[3]	Dec. 1-Sept. 1	May 1-Sept. 1	May 1-Sept. 1
	Delaware	At all times					Feb. 1-Sept. 1	Apr. 15-Oct. 1[4]	Apr. 15-Oct. 1
	Maryland	Dec. 25-Aug. 15	Dec. 25-Nov. 1	May 1-Aug. 15	May 1-Aug. 15	Dec. 25-Nov. 1[4]	Nov. 1-Sept. 1	Nov. 10-Nov. 1[22]	Nov. 1-Sept. 1
	Dist. Columbia	At all times		Apr. 1-Sept. 1	Apr. 1-Sept. 1	Jan. 1-July 1	Feb. 1-Sept. 1	Apr. 1-Sept. 1	Apr. 1-Sept. 1[16]
	Virginia	At all times	Local laws	Jan. 1-July 20	Jan. 1-July 20	Feb. 1-Nov. 1[20]	Jan. 1-July 20[20]	Apr. 1-Oct. 15	Apr. 1-Oct. 15
	West Virginia	At all times			July 1-Mar. 1	Nov. 2-July 15		Apr. 1-Oct. 1	Apr. 1-Oct. 1[19]
	Kentucky	Feb. 1-Aug. 1				Feb. 1-June 20		Apr. 1-Aug. 15	Apr. 1-Aug. 15[16]
	Ohio	At all times	To Nov. 10, 1904	Dec. 2-Nov. 10[21]	Dec. 2-Nov. 10[21]	Sept. 2-Aug. 1	Dec. 2-Nov. 10[21]	Dec. 16-Sept. 1[4]	Dec. 16-Sept. 1[4]
	Michigan	At all times	To 1910	Dec. 1-Oct. 1	Dec. 1-Oct. 1[12]	Dec. 1-Oct. 20[19]		Dec. 1-Oct. 1[12]	Dec. 1-Oct. 1[12]
	Indiana	At all times	At all times			Jan. 1-Nov. 10[18]		Apr. 15-Sept. 1[19]	Apr. 15-Sept. 1[19]
	Illinois	Dec. 1-Aug. 1	To 1908	May 1-Sept. 1	May 1-Sept. 1	Dec. 1-Aug. 1		Apr. 15-Sept. 1	Apr. 15-Sept. 1
	Wisconsin	At all times	To Sept. 1, 1905[7]	Dec. 1-Sept. 1	Dec. 1-Sept. 1	Dec. 1-Sept. 1		Jan. 1-Sept. 1[22]	May 1-Sept. 1[12]
	Minnesota	Nov. 1-Sept. 1	At all times	Nov. 1-Sept. 1[4]	Nov. 1-Sept. 1	Nov. 1-Sept. 1		Dec. 1-Sept. 1	Dec. 1-Sept. 1
	Iowa	At all times		Apr. 15-Sept. 1	Apr. 15-Sept. 1	Jan. 1-July 10	Apr. 15-Sept. 1	Apr. 15-Sept. 1[18]	Apr. 15-Sept. 1[18]
	Missouri	Jan. 1-Aug. 1	Jan. 1-Nov. 1	Jan. 1-Aug. 1		Jan. 1-Aug. 1		Apr. 1-Oct. 1	
	Kansas	Sept. 15-Aug. 1	To Feb. 28, 1907	Sept. 15-July 15				Apr. 25-Sept. 1	Apr. 25-Sept. 1[19]
	Nebraska	Oct. 31-Apr. 15	At all times	Oct. 31-Apr. 15	Apr. 16-Sept. 1			Apr. 16-Sept. 1	Apr. 16-Sept. 1
	South Dakota			May 15-Sept. 1		Jan. 1-Sept. 1		May 1-Sept. 1	May 1-Sept. 1[19]
	North Dakota		To Sept. 1, 1905			Oct. 15-Sept. 1		May 1-Sept. 1	May 1-Sept. 1[19]
	Montana	At all times	At all times					Jan. 1-Sept. 1	Jan. 1-Sept. 1
	Wyoming	At all times	To Sept. 1, 1906	May 1-Sept. 1	May 1-Sept. 1		May 1-Sept. 1	May 1-Sept. 1	May 1-Sept. 1[19]
	Colorado	Sept. 1-Aug. 1	At all times		Apr. 16-Sept. 10[9]			Apr. 16-Sept. 10[9]	Apr. 16-Sept. 10[9]
SOUTHERN.	North Carolina[1]	Mar. 15-Nov. 1			Local laws	Local laws		Local laws	Local laws
	South Carolina	Mar. 1-Aug. 1	To Dec. 22, 1903			Apr. 1-Nov. 1			
	Georgia[4]	Mar. 15-Aug. 15	To Nov. 30, 1905					Feb. 1-Sept. 1[9]	
	Florida							Apr. 1-Oct. 1	
	Alabama	Mar. 1-Aug. 1	To Feb. 8, 1904			Mar. 2-Nov. 15			
	Mississippi	Mar. 1-Sept. 15							
	Tennessee	Mar. 1-Aug. 1	Jan. 1-Dec. 1	Apr. 15-Oct. 1	Apr. 15-Oct. 1	Apr. 15-Oct. 1	Apr. 15-Oct. 1	Apr. 15-Oct. 1[9]	Apr. 15-Oct. 1
	Arkansas	At all times							
	Louisiana	Mar. 1-July 1		Oct. 1-Aug. 1[9]				Apr. 1-Sept. 1[4]	
	Texas	Feb. 1-Sept. 1	To July 1, 1905						
	Oklahoma	Jan. 1-Aug. 1	To Jan. 1, 1904	Jan. 1-Aug. 1					
	New Mexico		To Mar. 14, 1906						
	Arizona		Mar. 1-Oct. 15			Mar. 1-Oct. 15		Mar. 1-Oct. 15	
PACIFIC.	California[1]	Feb. 15-July 1	At all times	Feb. 15-Oct. 15			Feb. 15-Oct. 15	Feb. 15-Oct. 15	
	Nevada	Nov. 2-July 15	To Sept. 1, 1906	Mar. 1-Sept. 15	Mar. 1-Sept. 15	Mar. 1-Sept. 15		Mar. 1-Sept. 15	Mar. 10-Sept. 15
	Utah	Dec. 1-Aug. 15	At all times		Mar. 15-Feb. 15[19]			Mar. 15-Feb. 15[19]	Mar. 15-Feb. 15[19]
	Idaho	July 15-Feb. 15	To Mar. 11, 1907	July 15-Feb. 15	July 15-Feb. 15			Feb. 15-Sept. 15	Feb. 15-Sept. 15
	Washington	At all times	To Oct. 15, 1906[1]	Mar. 1-Aug. 15	Mar. 1-Sept. 1		Mar. 1-Aug. 15	Mar. 1-Sept. 1	Mar. 1-Sept. 1
	Oregon	At all times	To Oct. 1, 1905[1]	Jan. 1-Aug. 1[9]		To Oct. 1, 1905	Jan. 1-Aug. 1	Mar. 1-Sept. 1[9]	Mar. 1-Sept. 1[9]
	Alaska	At all times		Dec. 16-Sept. 1	Dec. 16-Sept. 1			Dec. 16-Sept. 1	Dec. 16-Sept. 1
	Hawaii	Feb. 1-July 1	To 1907	May 1-Sept. 16[9]	May 1-Sept. 16			Feb. 1-Sept. 16[9]	Feb. 1-Sept. 16
CANADA.	British Columbia		At all times	Mar. 1-Sept. 1				Mar. 1-Sept. 1	
	N.W. Territories[14]				May 5-Aug. 23			May 5-Aug. 23	
	Manitoba	At all times		Jan. 1-Aug. 1[4]	Jan. 1-Aug. 1			Jan. 1-Sept. 1	
	Ontario		To Sept. 15, 1905	Dec. 16-Sept. 15	Dec. 16-Sept. 15	Dec. 16-Sept. 15	Dec. 16-Sept. 15	Dec. 16-Sept. 1	May 1-Sept. 15
	Quebec			Feb. 1-Sept. 1	Feb. 1-Sept. 1	Feb. 1-Sept. 1		Mar. 1-Sept. 1[4]	
	New Brunswick		At all times		Dec. 2-Sept. 1	Dec. 2-Sept. 1		Dec. 2-Sept. 1[9]	Dec. 2-Sept. 1[4]
	Nova Scotia		At all times		Mar. 1-Sept. 1[9]	Mar. 1-Sept. 1[9]		Mar. 1-Sept. 1[14]	
	Newfoundland			Jan. 12-Aug. 21	Jan. 12-Aug. 21			Jan. 12-Aug. 21	Jan. 12-Aug. 21[9]

PROTECTED IN A FEW STATES ONLY.

PTARMIGAN.	
Colorado	At all times
Washington	Jan. 1-Sept. 1[9]
Alaska	Dec. 16-Sept. 1
Quebec	Feb. 1-Nov. 1
Nova Scotia	At all times
Newfoundland	Jan. 12-Sept. 16
SAGE HEN.	
Nebraska	Dec. 1-Oct. 1
Montana	Dec. 15-Aug. 1
Wyoming	Oct. 15-July 15
Colorado	Oct. 21-Sept. 1
California	Feb. 15-Sept. 1
Nevada	Feb. 16-July 15
Utah	Dec. 1-Aug. 15
Idaho	Dec. 1-July 15
Washington	Jan. 1-Sept. 1[9]
REEDBIRD.	
New Jersey	Jan. 1-Sept. 1
Pennsylvania	Dec. 1-Sept. 1
Delaware	Feb. 1-Aug. 25
Maryland	Nov. 1-Sept. 1[9]
Dist. Columbia	Feb. 1-Sept. 1
CURLEW.	
New Jersey	Jan. 1-July 15
New York	May 1-Sept. 1[9]
Virginia	Jan. 1-July 20
South Dakota	May 15-Sept. 1
Nebraska	At all times
Wyoming	May 1-Sept. 1
Colorado	Apr. 16-Sept. 10[9]
Tennessee	Apr. 15-Oct. 1
California	Feb. 15-Oct. 15
Nevada	Mar. 1-Sept. 15
Hawaii	May 1-Sept. 10
Quebec	Feb. 1-Sept. 1
Newfoundland	Jan. 12-Aug. 21
CRANE.	
Nebraska	Apr. 16-Sept. 1
South Dakota	May 1-Sept. 1
North Dakota	May 1-Sept. 1
Colorado	Apr. 16-Sept. 10[9]
Nevada	Mar. 1-Sept. 15
Washington	Mar. 1-Sept. 1

[1] Certain local exceptions. [2] Certain species. [3] Except month of July. [4] Except Mar. 15-Apr. 21. [5] Except month of April. [6] Sale. [7] Except month of March. [8] Upland plover only. [9] Altitudes above 7,000 feet, May 1-Sept. 15. [10] Except unorganized Territories, in which the seasons are as follows: Deer, elk, caribou, mountain sheep, mountain goat, Apr. 1-July 15 and Oct. 1-Dec. 1, musk ox, Mar. 20-Oct. 15; grouse, prairie chicken, Jan. 1-Sept. 1, duck, goose, swan, Jan. 15-Sept. 1. [11] Except July 16-Oct. 1. [12] Also Oct. 1-Nov. 10, unless permit be obtained. [13] Except certain species, Mar. 2-Apr. 11. [14] Caribou protected in Maine to Oct. 15, 1905. [15] Moose only. [16] Moose only. [17] Swan North Dakota, to Sept. 1, 1905. Nevada, Wisconsin, and Wyoming at all times. [18] Caribou only. [19] Under the old law, which still stands. [20] Except Aug. 1-Oct. 1, caribou only; moose protected to Jan. 1, 1912. [21] Except Mar. 10-Apr. 21. [22] Except south of Canadian Pacific R. R. between Mattawa and Port Arthur, Nov. 16-Nov. 1. [23] Except crested quail, to 1907. [24] Except sora. [25] Except July, Aug., and Sept. [26] Except Oct. 1-Dec. 15. [27] Except April 10-25. [28] Caribou protected in Nova Scotia to Oct. 1, 1905. [29] Swan only. [30] Except west of Blue Ridge. Jan. 1-Nov. 1. [31] In twenty counties to Mar. 18, 1906. [32] Except wood duck, Mar. 1-Aug. 1.

* Laws for 1903 not yet received.

SNOWY HERON.

AN APPEAL TO WOMEN.

The Audubon Societies, through their organ, *Bird-Lore*, make an urgent appeal to the women of America to abstain from using aigrettes. It is claimed that the herons from which these aigrette plumes are taken are rapidly approaching extinction. The dealers' offer of $32 per ounce for raw plumes tempts hunters to defy the law, and it is believed that if woman does not abandon the use of aigrettes the white herons throughout the world will be exterminated.

Bird-Lore publishes a detailed statement of the facts in the case by William Dutcher, which can be obtained in leaflet form from the National Committee of Audubon Societies, 525 Manhattan avenue, New York City.

AN INFLUENTIAL CLUB.

The columns of our Los Angeles contemporaries contain announcements of the organization at Santa Monica of a new gun club which will, in point of exclusiveness, be second to no organization in this country. The work of organization has been conducted by Mr. Henry W. Keller, formerly of the State Fish and Game Commission, a sportsman known throughout the length and breadth of the land and a capitalist of prominence in Southern California.

The membership of the club will be limited to fifteen, and probably $20,000,000 in private wealth will be represented therein. Money, however, is but incidental to membership qualification; thorough and proved sportsmanship being the prime requirement.

Thus far ten members have been taken into the soon-to-be incorporated club. They are: Joseph Banning and Hancock Banning of Catalina Island fame; L. I. Merrill, an Arizona capitalist; W. T. Gillis of Santa Monica, a large property holder, director in the Bank of Santa Monica and connected with the Artesian Company; John Cline of Los Angeles, collector of customs for this district; William Bailey, a Los Angeles capitalist; Charles Winship, capitalist of Los Angeles; W. H. Keller of Santa Monica; Irving Ingraham, a prominent moneyed man of Los Angeles; and former Police Commissioner Willard H. Stimson.

The club has already expended $25,000 in the purchase of 283 acres on the Anderson-Rose ranch, between Santa Monica and Los Angeles, and will very shortly build a $10,000 clubhouse on their preserve, beside expending some $10,000 additional in improving the grounds, which are said even under present conditions to be the choicest duck grounds in the State.

FLY-CASTING CLUB'S ELECTION.

At the annual meeting of the San Francisco Fly-Casting Club, held February 2, in the assembly hall of the Mills Building, the following officers were elected: President, Colonel Carlos G. Young; first vice-president, Colonel George C. Edwards; second vice-president, Edward Everett; secretary-treasurer, T. W. Brotherton; executive committee—Walter D. Mansfield, T. C. Kierulff, James S. Turner, F. H. Reed and Charles Huyck.

The competition at Stow Lake, Golden Gate Park, during the forthcoming season will be governed by practically the same conditions which prevailed last year.

CHAPTERS IN A WOODCOCK'S HISTORY.

By Arthur H. Norton.

OF SUCH a favorite and long-known game bird as the American Woodcock, little could be written that would prove new to its literature: Yet as the corps of sportsmen is ever being augmented few facts upon the bird's habits are likely to be found uninteresting. The nocturnal night-song of the woodcock seems to have been so common to our three great bird biographers, Wilson, Nuttall and Audubon, that they gave it but brief attention in their works; indeed, Wilson is so lacking in detail that his short notice of it seems rather misleading. It has, however, been so well described by several later writers that there is little need to resort to these early works.

The so-called singing and its prelude seems to be generally performed from some spot near its permanent summer haunt, to which it resorts from about sunset to an indefinite hour, being governed, no doubt, by the intensity of its passion, the season and the weather.

The birds observed by the writer have during the performance occupied irregularly several positions falling within the space of half an acre. The prelude consists of a number of vocal calls, closely resembling the call of the nighthawk. An indefinite number of these calls are delivered, between which are low sounds which are likely to escape a dull ear.

At length the bird rises, flying for fifty or more yards along a straight and slightly ascending line, rising but little above the height of the surrounding cover. This direct flight—which I shall term the initial flight—completed, it swings into circles and towers to a considerable height, three or four hundred feet it is ably attested.

From the start it produces the rustling flight-sound so familiar to sportsmen, unbroken at first but near the time that it begins circling becoming distinctly separated into periods and increasing in intensity. When, as it would seem, the limit of its towering is reached, it bursts into spasms of rich melody.

These sounds seem to have a close affinity to the flight-sounds, but are greatly accelerated in intensity, volume and musical effect. This act finished, the bird descends with great rapidity nearly straight downward until, at about the height of the first circle, it describes a sharp angle and reaches its calling place by a gently descending course corresponding to the line of the initial flight. There the entire performance is repeated and may be continued until a late hour.

While the bird furnishing the principal data for this article occupied occasionally several spots within a small radius, it seemed to have a strong preference for a spot falling within a circle of ten feet. The particular locality was a bushy pasture in Westbrook, Me. More particularly a swampy piece of ground filtering its surplus water through loamy lowland to an alder-grown brook. This swamp afforded a dense tangle of brierless shrubs (*Andromeda spirea*) and others. Sloping up from this a hillside afforded growth to gray birches, a few white pine saplings, the high blackberry and other shrubby plants. Here also were decaying stumps and bleaching trunks of trees, probably white pines, showing that the lot had suffered from a forest fire at some earlier time.

The curvature of the foot of the hill and adjoining high ground, which made the swamp a basin, gave a slope exposure facing the south, the west and the southwest.

The bird appeared to abide in the immediate vicinity of his theatre of action in the edge of the swamp or on the foot of the hill close at hand. The spot chosen for his ser-

WOODCOCK.

vice was a dry plot on the border of the swamp, with clay loam soil, a few stumps and a dead juniper bush. The ground was clothed with short grass and *Potentilla canadensis*. On the northwest were more bleaching trunks, thorns and shrubs. The exposure was to the southwest.

At the other end of the hill which was a small one, southeast from the point described, another woodcock had a station, and out across the swamp to the south, on a long ridge similar in vegetable character to our little hill, were three others, five in all within hearing from the spot.

Our first observations were made May 17, 1889, from dusk to an hour late in the evening. It was a warm, calm evening, free from moonlight. As the bird ascended we ran near the place and sat upon the ground, but owing to the darkness were unable to see anything of it, except for an instant as it came in range of the western horizon in rising or settling.

As it rose on all occasions observed by us its initial flight was first directed out over the swamp; this took it over the lowest land, thus requiring the least elevation before the circling began. The axis of its gyrations seemed to be a point in the swamp. On the ground its "*paif*" or vocal calls were delivered with deliberate pauses, until the nearest bird to it approached nearer than usual, when it became much animated and uttering the calls with intervals of only three or four seconds it soon towered in song.

Late in the evening as we departed the bird showed no indication of stopping. Indeed, on another occasion, May 8, 1890, while passing through a cover now embraced in the limits of Portland, between the hours of 12 and 1 A. M., a number of woodcock were heard at their singing with all the ardor displayed in the evening. This was not a moonlit night.

On the evening of April 8, 1892, we observed under different conditions. Let it be noticed that this was four years after our first observation, and five weeks earlier in the spring. It was at the same place and the same spot was used by the bird we felt must be our old friend. Within hearing we carefully counted four others during the course of the evening, which was fair and seasonally warm.

Was it owing to the less genial season that our old friend was so reluctant to open his evening's performance?

It was too dark to see a bird when we reached the place, but the harsh "*paif*" was ringing on the calm air. After a few repetitions of the call, he lapsed into perfect silence for many minutes. Then as we walked toward the spot we heard the rustle of wings as he sped toward the hillside. But soon he was heard calling in another part of his favorite plot, and with his usual force. Now we cautiously approached him with a blazing bull's-eye lantern (of small size) but he ran before us as we were unable to circle around him.

At 8 o'clock the first musical ascent was made after our arrival began and from this time forward he made, it seemed to us, as many song-flights as usual. After these began we were able to secure positions quite close to his select spot of calling, and to turn the stream of light upon him. This did not seem to give him any alarm, and he continued calling as before, now with all his motions perfectly visible to us.

With each burst of sound his breast swelled, his wings moved slightly from his sides, and his head was drawn backward all in a convulsive manner. No strutting was indulged in, nor was his tail visibly moved from its ordinary position below the wing tips. With each call he took a step or two and turned part way around, then stood with the aspect of looking and listening.

It was later than nine o'clock when we retired from the place, but this and all the other birds were as active, as long as we could hear them, as at any other time.

Two years later, April 8, 1894, a damp snowstorm prevailed throughout the day, covering the ground to the depth of several inches. Toward sunset we repaired to the old ground, which we reached before the darkness of evening. At 6:30 o'clock, twelve minutes after sunset, our old friend (for there is little reason to doubt it was he) was seen to fly swiftly and but a few feet above the ground, from the thicket of the swamp to the long-used plot, where he was now rendered most conspicuous. We took positions quite close and remained quiet watching with every movement visible. His actions in calling differed in no respect from those observed two years before. In rising in the song-flight the initial flight began in a straight course, but soon, before the point of the first circle was reached, the bird began a zigzag or swaying motion from side to side, which increased in extent and rapidity as the distance from starting increased and continued after the circling began. It was now possible to observe that the intensity of its sound and its musical effect increased as the speed and irregularity of his flight increased.

When on the ground he occasionally ran a short distance in an uneasy manner, once taking a short flight to a point farther up from the swamp, and I had often observed him resort to on being disturbed at his favorite plot; but after one song-flight following this he descended to the old spot, that long-used ten-foot area to which he seemed attached. A cold north wind sprang up and at seven o'clock he ceased his musical performance, lighting at this spot. Then he ran slowly for half a foot and stopped, ran as far again and stopped, and thus continued for a distance of about six feet. Then he rose and flew swiftly to the cover of the swamp. For ten minutes we waited in vain and then departed.

The next evening we returned and found the snow gone from the knolls, but nearly five inches deep in the little swamp. On our arrival, about 6:45, we found our bird at his evening service, and again were able to observe his swaying motion as he rose in song and also that he returned to the same spot upon the ground. Then we visited the other points as no sound had come from them, but no birds were to be found. Returning by our old station at 7:25 no sound greeted our ears.

During the next few years this cover became a popular one for woodcock hunters, and, lamentable as it seems, yielded a few good days' shooting before the immigration began. It is certain that some of the birds escaped, however, and bred as late as 1897.

Then came the Carolina freeze of February, 1899, which proved so disastrous to woodcock. Early the following April I made a short visit to the cover, but the place seemed deserted, and while this evidence was not conclusive, I felt that my friend had fallen a victim either to early shooting or the great natural catastrophe.

Conducted by A. T. NOE, M. D.

I SPOKE, in our last issue, of the value of the skin and its care. I have received some requests as to the best tonic to take and will reply to those questions with one answer to all. Fresh air, water and exercise are the only tonics I ever use, and the free use of these three great invigorators will make your cheeks blush like a rose, no matter how old you are or how many wrinkles powder and cosmetics have left.

This month I wish to speak of food as a health factor. Physiological chemistry is a vast subject, and in the limited space permitted me it is very hard to choose the most essential and necessary topic.

I would first call attention to the purpose of food. In the first place, our palate was not given to us for pleasure alone, but as a means of protection as well. Man in a natural state knows just what he needs and exactly how much. But civilization and artificial conditions have perverted natural instincts till they fail us entirely, and we have fallen so far from the standard nature intended that we actually eat that which is rank poison to our body—and worst of all we enjoy it! We wonder where all the multitudes of pains and aches we suffer come from, where cancer and consumption start, but I assure you the beginning of all these things lies in the food supply.

The most wonderful piece of intelligence extant is the human stomach and digestive apparatus. When we think of the amount of stuff we throw into it, the amount of useless waste it has to take care of and the poor quality of material of most of the food taken, I am sure you will agree with me when I say the human stomach is indeed a most marvelous thing. Out of a conglomerate mass of food and drink, that many times rivals a reeking garbage barrel, the digestive function extracts the means of keeping up life—the blood.

The blood is composed of the salts that rebuild the tissues and these inorganic substances are absolutely necessary to health. The lack of any one will cause disease, and so the stomach bravely goes on, ever trying to keep up a balance and perform its duty. If we do not eat the foods that contain these elements, lime, potash, sulphur, iron, soda, magnesia, phosphates, etc., there occurs a deficiency in the blood cells that soon causes a breakdown in the tissues.

We must eat the kind and amount of food necessary to tissue reproduction. This is an absolute law and can not be infringed without damage to ourselves. No machine can run without fuel. An oil engine will not run with water for fuel; an electric machine will not run with coal; just so the body can not run without the organic and inorganic substances it consumes. This brings us to the topic of the kinds of food.

Man's natural food is that which grows in the field and on trees—cereals, nuts, fruit, and vegetables. These are wholly capable of sustaining life. The craving for meat is a cultivated taste and flesh is now almost a necessity. I do not believe in a total abstinance of any food that is agreeable and palatable, but I do not think meat should be eaten more than once a day and then not every day.

Man's body is composed of earth elements and must have these materials to keep up the system and to rebuild and repair the waste and wear. Now, as vegetables also take their substance from the earth they are the most easily accessible and palatable means of supplying our needs for the tissue builders. I use and advise them.

I strongly recommend the use of raw vegetables as a means to acquire strength and endurance, also as a curative factor. In the diet kitchen of my sanatorium I place the most faith for the cure of my patients. Long years' experience with kitchen chemistry have demonstrated beyond question the great importance of raw vegetables. I find in cases of nervous patients that lettuce, celery, onions, and cabbage are almost specific. They eat them without salt and after the strangeness wears off find them a most delightful substitute for soggy cooked turnips, potatoes, etc. Cabbage is not wholesome cooked, but raw is easily digested and highly nutritious. People with torpid livers soon respond to a meal of raw carrots, whole wheat bread, raw onions, nuts and tomatoes.

If you must eat your vegetables cooked, do not boil them; this renders them entirely useless as a body builder and only strains the digestive system to rid itself of so much waste. When you place fresh vegetables into water and boil them the water absorbs the elemental salts and leaves a residue of useless material. If the water is thrown off, you might as well throw away the rest. If you really feel that you prefer boiled things, drink the water in which they are cooked; you will then at least obtain the necessary materials your body requires.

Any one will quickly realize the value of steaming or smothering food if they will taste the same food cooked both ways. Take a cauliflower and steam it and then take one and boil it; you will soon see for yourself the vast difference in flavor and color. Boiled turnips are simply good for nothing, while raw they are full of silica, phosphate and magnesia. Boiled cabbage, well greased with fat of pork, is a deadly concoction to many, especially to one who mixes a lot of starch foods like potatoes, beans, etc., with it.

A few words upon the subject of taking so many different kinds of food at the same meal. This custom is the most common cause of dyspepsia. Some kinds of food will not mix, and when you put these antagonistic substances together in the stomach you start a revolution that is bound to destroy something, and you are in luck if it is not your health and life. The consequence of two or more foods that will not associate is to produce fomentation. This means no digestion, simply decay. This is the condition of more than half of the stomachs I have treated. A great many people eat soups rich with fat and vegetable matter the first part of the meal, then on top of that take fish full of oil and probably served with a rich sauce. This makes a full meal, but very few feel that they can stop there; they therefore proceed to fill up on meat, vegetables, pastry, puddings, and wash it down into the already distended stomach with various liquids, tea, coffee, wine, ice water, etc. Try to imagine the mix-up the poor stomach has to straighten out, and do not wonder that we are a race of dyspeptics.

I only ask the one who wishes to be strong and well to try for himself the effects of the less cooked and highly seasoned victuals and a few more natural foods in the raw state. Of course there are some vegetables that are not palatable raw; eat these steamed, or baked, or not at all.

Do not mix starch with too much meat, for the acid of the meat will be held in the decaying state by the starch, and will only cause indigestion instead of giving nourishment and stimulation to the body. It is not wise either to eat a generous supply of meat and follow it with sour wines and fruit. This is too much acid for the fluids of the stomach to equalize, and the blood becoming tainted with uric acid, rheumatism, gout, lumbago and kindred ills are the result. Another thing: starch is mostly waste, and people who eat a great many potatoes only pack and distend the digestive canals until they are unable to act, thus causing all sorts of liver, bowel and stomach troubles. I have demonstrated this fact a thousand times and have personally overcome catarrh by carefully eliminating starchy and overcooked food from my diet.

I do not think it is possible to lay down any absolute law with regard to food, for each one knows best how what he eats affects him. So each one must study his own needs, find the things he requires and not allow custom, habit, palate or preference to inveigle him into eating that which he knows is not good for him or for which he has no use or need physically. But every man, woman and child must have the essential elements with which to keep up the life of the body. And we can not obtain them

in any other way than by food. Sulphur, lime, potash or iron taken in drug form are worthless for tissue building; they are dead, inactive, inert; but taken in the form of vegetables are ready for immediate use as soon as they are separated from the other substances.

Growing children instinctively like raw vegetables, and many a child has been laughed at for enjoying a carrot or turnip fresh from the earth. I have had my ears boxed for taking mother's carrots, many a time, and I never enjoyed anything more. It is too bad that the instincts of children should be perverted and obliterated as they are, for nature gave us that means of protection against harm and the loss of this means of safety places us in a position where disease and weakness will have the best chance to overcome us.

Artificial foods have become so much a part of our daily diet that it is hard to recognize the percentage of elemental salts contained in the average bill of fare. But there are certain foods which we are sure contain the necessary materials for cell building, and we must be sure to partake of them at least once a day. We know that onions and carrots contain sulphur, and so onions and carrots should be eaten at least twice a week. Turnips, celery and cabbage contain phosphate of soda and silica, and one of them should be eaten once a day. Spinach and asparagus contain iron, so do peas and green beans. Some of the vegetables contain several kinds of salts, but one is generally predominant.

Butter, nuts and eggs contain organic substances necessary to the body, and when these are used in connection with raw vegetables you will find your keen enjoyment of the things you eat so great that you will wonder why you ever stuffed yourself with worthless substances and then suffered with bowel and stomach troubles.

I know that many people look on the diet question as a mere fad, but I know, too, that patients who have tried every drug they could possibly find for their disease, and who failed to respond to the most powerful remedies, yield readily to the treatment of natural foods uncooked, abetted by fresh air, water and exercise.

I have been a dispenser of medicine for years, and still find cases that require a foreign element to bring about the desired condition, but I have proved from experience that our bodies will repair and rebuild themselves if we but supply them with the necessary amount of material with which to work. On the other hand, we must not impede the natural operation of our bodily functions by giving them an overplus to take care of, nor straining the supply centers by overwork or excesses in any direction.

While man is endowed with marvelous powers of endurance and recuperation, even these powers will fade and grow lax for want of reinforcement. We must keep our physicial machine well oiled and see that there are no rough places where friction will destroy the working gear. We must use plenty of the proper fuel, and keep the waste out of the road. We must keep the machine absolutely clean, for dirt, dust and dead matter, lying on the surface, will soon corrode and ruin the delicate adjustment working within.

As I have said, there is no general rule for diet. But I must emphasize the question of cleanliness. See to it that what you eat is clean; that your raw vegetables are well washed and that they are fresh. Warmed over food, especially greasy things, are not fit for human use. Meat that is fried in grease is simply vile and not one stomach in five hundred can properly digest it. The abomination called "flannel cakes" (and pancakes in general) are about as indigestible as the cloth from which they are named. The combination of lard and starch is a tough thing for any stomach to tackle. White flour may taste very fine, but it is valueless as a food, for all the phosphates and sulphates have been removed in the bolting process. If you eat white bread, eat some brown bread, too. Whole wheat or graham bread are fine cell builders and full of phosphates.

Nuts are an invaluable article of food, and if more nuts and less meats were daily consumed there would be less rheumatism and cancer. They are full of organic fats and are delicious as well as wholesome. They are not as expensive as meat, for a few nuts will satisfy a taste that is not abnormal and will give more nourishment than twice the same amount of meat. They are quickly and easily digested even by people who say they can not eat oily things. Nuts have

been considered as heavy and indigestible, but this is not true. They are a highly nutritious food, and being full of fats and taken upon a full stomach are very naturally too much for the already overloaded stomach to take care of, and of course they cause indigestion. Most people eat nuts after a big dinner, and this is what makes trouble. Try a little fruit and a few nuts for your noonday meal, and see how fine they are and how well you can digest them.

Now a word about fruit. This most wholesome natural food is one of the greatest blessings nature has provided for our sustenance. More fruit and less pastry and meat would make fewer dyspeptics. You will hear people say that fruit does not agree with them. The stomach with which fruit does not agree must indeed be in bad shape, for there is nothing more nutritious and excellent for the body than this delicious food. It is the indiscriminate use of meat and fruit together, with large quantities of starch, that causes the stomach to revolt, and then people say that they can not eat fruit.

Apples are a fine tonic and are invaluable as an article of diet. Taken in the morning raw or baked they stir up to activity the secretions of the stomach and enable the digestive apparatus to fully take care of the food for the day. Of course if you pile in a lot of steak or chops and hot cakes fried in lard on top of the apples, the two acids of the fruit and meat will surely disagree and indigestion will result. Oranges well ripened are fine for liver patients and are excellent to induce a flow of bile and other secretions which digest food. Meat, milk, or even other fruit should never be taken with oranges; they are best alone.

I might go on ad infinitum about the different kinds of fruit and their value, but I shall only specialize one more—the lemon. This wonderful fruit has so much to recommend it that it is hard to choose among its manifold virtues. It is a sterilizer par excellence. Fever, inflammation, torpidity, all yield to its magic, and I have found it a specific for colds when the patient was willing to use nothing but lemons and hot water for forty-eight hours. It is healing as well as purifying and is a disinfectant beside. People with sour stomachs will find themselves entirely rid of that dangerous condition if they will give up solid food for a day and take a liberal supply of hot water and lemon juice.

I spoke in the begining of this article of people who ate injurious foods and, sad to relate, enjoyed them. This may seem rather contradictory, for how can one enjoy what hurts them. That is, however, just exactly what people do. Take, for instance, the meat which many people eat. They do not care for it until it has begun to rot—or be a little "gamey," as I believe it is called. When meat has begun to become tainted with decay it is a most dangerous thing to absorb into the human system, in fact it is the rankest poison, yet many gourmands and epicures will not eat meat until it is almost ready to drop to pieces. In putrid food of this kind cancer and kindred diseases have their origin. Another food is cheese. Would you eat an apple smelling so rotten as to revolt the olfactory nerves? Would you eat bread molding and green with decay? Yet people every day swallow quantities of stinking, rotten milk called cheese and are delighted with the flavor that should warn them of its unfitness for consumption. I can not see why reasonable beings should so far deny their instincts as to eat that which nature resists. Fresh cream cheese, pot cheese, or new whey are all nutritious, although they are difficult of digestion to most people and by persons of weak and inactive bowels should not be touched.

I do not hesitate to say that people will have to cease adoring their palates and catering to a cultivated artificial taste if they wish to be strong men and women. "Eat to live," but if you live to eat you will die. Man's stomach will stand an awful lot of bad treatment, but when it does rebel and give out, like "Humpty Dumpty" all the king's horses and men cannot restore it. I mean by that that no drugs, medicines, etc., will patch up what the abuse of years has broken down, and if there is any hope of recovery it will come from nature herself, and you must supply her with her own means of repairing, else she will not be able to do the work.

To those with poor digestion, weak or inactive stomach and bowels, torpid liver, and all diseases of the digestive and nutritive system, I say study your physiological chemistry. Find your needs and what you lack,

and be wise in the application of your knowledge. Any clever physician will show you what you require in the food question, and then you can find the best means of supplying that need.

Always remember you are the absolute master of the situation and if you have trouble with your digestive apparatus it is you, and you alone who are to blame, and if you do not get well it is because you are not giving nature a chance. Of course, there are incurable cases, but these are few, very few, and I know of many who had lost all hope yet have entirely overcome disease by the very simplest diet and by using the means intended for man's use

Animals follow their instincts and will not eat when they know it is not the thing to do. They lie in the sun, drink plenty of water, try to rest and allow their bodies to renew themselves without hindrance It may seem strange to take a dog or horse for an example, but a little dog or horse sense would be a very profitable thing for most of us. You can not catch a horse eating foul or decayed matter, unless it might be driven to it by absolute starvation. I have seen a hungry pup sniff a piece of spoiled meat and walk away.

This article is to help earnest men and women who wish to be well. With the man or woman who cares more for the pleasure of eating than they do for health I have no patience, no respect. I enjoy a good dinner as well as anyone, but I have learned through bitter suffering that the slave of appetite is to be pitied, and I for one intend to eat that which is good for me and enjoy it, too.

EXERCISES FOR NECK AND THROAT.

To develop and make the tissues and glands of the neck fill out and present a nice, well-formed neck with beautiful lines, also having developed upper back, you are now ready for the work of strengthening the neck and throat. The human voice is incased and protected by this part of the body, therefore you will readily see the great importance of having these muscles well under your control.

(*a*) Drop head as far to right as possible, hold a few seconds, then raise to position as in figure 35, keeping muscles of neck rigid. Repeat five times. Alternate from right to left ten times. Relax.

(*b*) Stand erect. Thrust out chin as far as possible, then drop head back as far as you can, as in figure 36, hold a few seconds, then drop head forward on chest. Relax chin. Repeat ten times, keeping chin well thrust when the head is dropped back. Relax.

(*c*) Stand poised. Rotate head on shoulders from right to left and back five times, as in figure 37. Reverse from right to left five times. Relax.

In taking up this work be careful to keep body erect and use only neck muscles. Practice them carefully and breathe through the nose. Bear in mind that you *will* to control these muscles and see to it that they obey.

Having now taken exercise for the separate parts of the body, the next step will be to take general work, using all portions of the body together. By the time you take this work your whole body is ready to respond to every demand you put upon it and able to obey quickly and with ease. Every part acting in perfect harmony with every other part will increase your strength, add power and beauty to your form and aid you to thoroughly know that you are master.

MENTAL EXERCISE No. 11.

Think of your whole body as your servant and how much you can accomplish through its service. Recognize the fact that you command its powers and that you will positively obey the dictates of your mind. Then say firmly, I AM MASTER.

EXERCISE FOR WHOLE BODY.

(*a*) Stand erect, right foot well forward. Hold stick size of broomstick, twenty inches long, in both hands. Imagine that this stick is the handle of a windlass with which to lift and that you are going to raise a very heavy weight with it. Grasp the stick firmly, tense all the muscles and then reach out as far forward as possible, then down, up and back. Bending body backward, allow windlass to move in as large a circle as you can reach. Keep movement up, raising arms high over head and then reach out forward again. Repeat four times, keeping muscles rigid. Advance left foot forward and repeat four times. Relax. Increase on each day till you reach ten rounds on each foot.

(*b*) Lie on floor, full length on back. Extend arms out on floor above head, palms up. Place feet under some convenient object to keep them from raising off the floor. Make

arms, neck and back perfectly rigid. Now, moving all together as one piece from the hips, raise arms, head and back straight up to sitting posture. Keep arms up over head and muscles rigid. Return to position and relax. Repeat three times.

Now, if you are faithful and careful in the practice of these general exercises, together with the past work, you will find yourself truly master, ready for the final test. Persistence is necessary to accomplish the desired end, so persevere and you will surely succeed.

You have now covered the whole body and should truly be its master. Your mind, conscious of its ownership and realizing its power to control, should exert that power and allow no alien force to contradict its authority. If your body does not respond as it should, you have failed to use your own rulership over it and permitted the body to rule you instead. Who should control—you or your body? In speaking of your body you say "my body," then make it really so, yours indeed to do with as you will. If you can perform the following test and exercise, you can truly say "I am master!"

TEST.

Assume a horizontal position, face downward, weight of your body entirely supported by hands and toes. Now slowly lower the body till chin and abdomen barely touch the floor. Keeping the body perfectly rigid and straight, slowly raise yourself to first position. Relax.

This concludes the course, and I trust you have faithfully and carefully carried out the work I have laid out for you. Day by day these instructions will unfold and evolve strength, health, mental and physical harmony. You may feel that you have done enough to simply practice the exercises mechanically, but this is wrong. Make this work a part of yourself. Make it your constant habit to *stand* and *breathe* correctly, to realize your own power and apply it at will.

Do not allow your appetite to betray you and cause you to eat that which is worthless or injurious to you. Do not eat such amounts of food that you can not consume, thereby clogging the machinery and forcing rebellion (disease) of the organs by overwork.

Do not forget that your skin is your natural protection or that it is part of your breathing apparatus and *must have air.* Heavy, closely woven underwear excludes the air, keeps the skin moist and weak and prevents its natural function by stopping excretion. Keep your skin perfectly clean with the daily rub down, and give plenty of air and breathing space by wearing *linen mesh underwear.*

I advise that at least once a month you fast for one whole day. Do not eat any food whatever for twenty-four hours, then break your fast in the same manner as before.

The exercises will give you a daily internal air bath by pumping the fresh, clean blood into every organ and tissue, feeding and stimulating them. They will rebuild your whole system, renewing the worn parts and strengthening them.

Always remember the great importance of the mental exercises, for as your mind operates through your brain so your body will respond. Try to keep cheerful as much as possible, especially at your meal time and on retiring at night.

Do not wear at night any of the clothes worn during the day. Have plenty of fresh air in the room where you exercise, also in your sleeping room.

I have only taught you the road to health, but you must walk the way and accomplish the work by yourself.

Remember that yours is the power to be well and strong. Use it wisely.

PRACTICAL RIFLE SHOOTING.

By W. D. King, Jr.

PART II.

PHYSICAL condition, as I mentioned in my first article, is one of the principal, if not the most essential feature, in fine rifle shooting. It makes no difference how fine an outfit a man has and how well he has it trained; if he is not in condition himself he will not do good shooting. I attribute my own success entirely to good condition and abstinence from stimulants of all kinds.

I use neither tobacco nor liquor in any form, abstaining even from tea and coffee, except when on hunting trips. There I take a little coffee to warm me up in the morning or as a bracer after a hard day's trip. Of all the stimulants popularly used I regard tobacco as having the worst effects on one's nerves. One of the best shots in this part of the country, who at one time—and that only a couple of years ago—was one of the "scrubs," had smoked a great deal and his nerves were not able to stand any kind of a strain, especially that incurred in match shooting. If it only required a "3" to win the match on his last shot, he would invariably go to pieces and make a "2," sometimes even missing the whole target. He was fortunately a man of good will power and liked the sport so well that he gave up smoking, and thereafter improved steadily until to-day he is a "top-notcher" and can make as good a shot at the wind-up as any man of my acquaintance.

Liquor, tea and coffee, when used moderately, do not have as bad an effect on the system as tobacco, because the effects are not retained in the system so long. Nevertheless, a man can not hope to be at his best at all times unless he radically eschews their use.

Of course, individuals differ in temperament, and occasionally some one man's experience may be diametrically opposed to this theory. A peculiar case once came under my observation. It happened that the party in question was out to a dance in the country the night before a shoot and was having a "good time," with all which that implies. About 2 A. M., as they were getting ready for the last quadrille his horse broke loose and started home alone, taking an easy trot and keeping the road as well as if being driven.

His owner on being informed of the fact grabbed his hat and started after him at a good gait, about one-third of a mile behind, and to the surprise of every one returned in about an hour and a half with his truant animal. He had run the horse down after going about five miles, and came back to finish the quadrille.

Driving home in time for breakfast, he filled up on strong coffee, and getting his gun and ammunition together went to the range (without a wink of sleep) and shot twelve ten-shot strings which, to the surprise of everybody, were as good in average and total score as any ever shot on that range up to that time. This was one of the proverbial exceptions which prove the general rule.

I have been asked a good many times how I train for a shoot; what I eat, how much I sleep, what exercise I take and what brand of "nerve tonic" I use. I do not train at all, and make no special preparation whatever for a shoot. I take a cold sponge bath every morning and a good rub down with a Turkish towel, but do this only because I like it and not as a matter of training.

I eat anything I want and at any time up to the minute I begin shooting. In regard to sleep, I do not go to bed any earlier before a shoot than usual; in fact I prefer a little less sleep than ordinarily, and have done some of my best competition shooting after traveling all night with but very little sleep. The nerves are not at as high a tension if one is a little tired and our movements are slower and more even, insuring more regularity in holding.

If possible eat a good hearty meal about two or three hours before you begin to shoot; this gives your food time to be partly digested and you feel contented and comfortable.

It is only after I have started shooting that I pay more attention to myself than usual, especially if I am shooting for a record or in a match. When I have once started on an event of this kind, I try to shoot at as nearly regular intervals as possible, and prefer not to wait but a few seconds after being loaded and ready. There are several advantages in this; your gun maintains an even temperature and by shooting fast you more readily detect any change in wind or light—an important factor where every point counts.

I do not stop to eat, but if I get too hungry will take a bite of something between shots—just enough to keep my stomach from feeling faint, and very seldom drink anything while I am shooting. In fact, I prefer to be moderately hungry and thirsty. To stop and eat a hearty meal would upset me for several hours, and I have convinced a good many others that such effect is common to all riflemen. There are, however, exceptions to this rule as all others, and I have known men who made the best scores of their lives just after a hearty dinner.

Another thing I try to do is to set every muscle in my body as near as possible in conformity to my shooting position and keep them there. I do not even sit down from the time I start shooting until I am through, preferring to keep an upright position and my legs straight.

Some people advocate long deep breathing just before getting ready to fire, but I believe the benefit

derived from it to the lungs and heart are more than offset by the disturbance of the muscles of the body, which, of course, affect the nerves also, so I breathe naturally at all times. This, of course, makes more difference where the arm rests against the body than in the old position of strictly off-hand shooting.

These points may seem unnecessary to the majority of shooters, as it is not pleasant to be thirsty and hungry, or to stand up when you would like to sit down and rest, and if one is shooting only for recreation they would make no particular difference. But a man shooting for a record or in a match wants every point possible, and will put himself to some little inconvenience to get them.

I have shot as high as 170 shots from a heavy muzzle-loading gun, loading it every shot and walking about forty feet each time to the score in less than six hours without stopping to take a bite or drink, and not sitting down once.

In my record score of 917 I shot 120 shots in about three hours and did nothing but load and shoot, and had gone without anything to eat or drink for nearly seven hours before finishing my shoot.

In order to keep all one's muscles and nerves in proper condition it is necessary to have a gun that fits as near as possible, so that it will not tire or strain one at any point, because if it does you will soon tire out and then bad shots and flinching are sure to follow.

There is not nearly enough attention paid to this point, as most of the guns used to-day do not fit their users correctly. In my next article I will try and explain how a rifle should fit and how to find out when it does not fit.

THE SPORTING RIFLE.

By E. A. Leopold.

PART I.

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MANY mistakes are made by sportsmen in the selection of a rifle for hunting big game because of the lack of a thorough appreciation of the main points of difference between the sporting rifle and the military arm. The invention of the jacketed bullet paved the way for the general adoption of smokeless powders, but a vast amount of experiment was necessary in order to adapt the weapons to the new conditions. On account of the great expense attendant upon this work, the initial experiments were conducted under governmental supervision and the natural result was the production of a military rifle. Taking this rifle as a basis, the private manufacturers then went to work, and, after making a few minor changes, recommended the weapons as suitable for hunting purposes.

After a lapse of eight or ten years we still find many hunters using long-range military cartridges for short-range shooting at game. The modern military rifle must be, and is, a long-range rifle. It must be capable of placing twenty consecutive shots in a target six feet high and twelve feet wide at a range of 1,000 yards, under average conditions as to weather. To attain this result requires that the bullet shall be more than four calibers in length. This refers to the small-bore smokeless rifle, the black-powder military rifle being obsolete. The long bullet requires a steep pitch of rifling to give it sufficient rotary velocity to keep it point on, and the short twist produces excessive friction and heat and shortens the life of the barrel, besides requiring a steel-jacketed projectile, which is very expensive. As the long bullet is driven at a high velocity, 2,000 feet per second, it follows that the recoil will be particularly vicious unless a heavy weapon is adopted, and a heavy rifle is not a desirable hunting weapon, excepting in certain special cases where dangerous game is encountered.

These statements indicate that the best rifle for game shooting is the one that uses a short missile, and a further discussion of the subject will serve to emphasize the same fact.

The object of the sportsman is to kill the game quickly, and this is best accomplished by the employment of a projectile of comparatively large diameter or one that will expand on striking the game. Many devices have been tried to insure the lateral expansion of the head of the bullet upon impact, but it is believed that nothing that is absolutely reliable in this regard has yet been produced, on account of the variable resistance encountered by the bullet in striking different kinds of game or different parts of the same animal.

The uncertainty of the expansive feature makes it desirable that we use a bullet of sufficient diameter to produce the required shock in case it should fail to upset at all. The 6 mm. (.236 cal.) can not be regarded as a thoroughly reliable weapon for such game as the Virginia deer, although it gives a higher velocity (2,500 f. s.) than any other rifle manufactured in America, and high velocity, generally, means killing power, for two reasons: first, the energy of a projectile is, amongst other factors, proportioned to the square of the velocity; and, second, the shock produced by the impact is greater with the higher velocity because a portion of the tissue of the animal becomes a projectile through direct collision, and its velocity will depend upon the velocity of the bullet with which it comes in collision. In the case of the 6 mm. bullet, if fired broadside at a deer, striking central and failing to upset at the head-on impact, it would make a very small hole and emerge at the opposite side retaining about 80 or 90 per cent of its energy. The penetration of the full-mantled bullet is 60 pine boards, each board being seven-eighths of an inch in thickness. Supposing that six boards offer as much resistance as a deer standing broadside, the .236 caliber rifle would shoot through ten deer standing alongside of each other, and would expend only 10 per cent of its energy on one deer. This illustration shows clearly how the sportsman may be deceived by overestimating the killing power of a small-bore rifle through judging it entirely from the energy of the projectile.

The 6½ mm. (.256 cal.) rifle is open to the same objections but in a lesser degree. It is a fine military weapon and accurate for target shooting at 1,000 yards.

The .30-30-160 is the smallest charge which may be considered suitable for game as large as the Virginia deer. A rifle or carbine to take this cartridge, with twenty-inch barrel, would weigh about six and one-half pounds—a handy weapon which a man of average strength could carry all day and use with precision at all times. The velocity of the 160-grain bullet is approximately 1,900 f. s., and its penetration is twelve boards for soft-point bullet. The length of bullet is 3.13 calibers, making it effective at the mid-ranges—say 500 to 600 yards—which is a much greater distance than the sportsman will care to fire at game. The velocity of recoil of the six and one-half-pound rifle is 7.3 feet per second, and the energy 5.4 foot-pounds, indicating that the weapon is a pleasant one to shoot, as the recoil is stopped in a space of one and one-half inches by the application of a shoulder pressure of 43 pounds.

If the military cartridge (.30-40-220) were used, the rifle should weigh eight and one-half pounds, giving a muzzle velocity of projectile of 1,960 f. s. and penetration of thirteen boards with soft-nose bullet. The velocity of recoil is 7.9 f. s. and energy 8.3 foot-pounds, indicating the requirement of 66 pounds shoulder pressure to stop the recoil in a space of one and one-half inches. Such a gun is heavy to carry, slow in use, and has a distinctly unpleasant kick. It is powerful enough to kill an elephant, and a dangerous weapon to use in a thickly-settled country. The projectile is 4.1 calibers in length, giving it excellent qualities for target shooting at long range.

(*To be continued.*)

By Arthur Inkersley.

THE managing editor of Western Field has asked me to write a series of articles containing answers to such inquiries about the game of golf as would be likely to be made by one who had never played it. The extraordinary growth of golf and the rapidity with which it has spread over all English-speaking countries have made a large number of people curious about the game and willing to take it up if some elementary instruction can be obtained with regard to the nature of the course, the implements to be used, and such other matters. There will, of course, be little or nothing in these articles that has not been said before by competent writers who are also skillful and experienced golfers. The present writer will avail himself of the best that has been published on the game, and will endeavor to make the subject as simple and intelligible as possible. It is believed that many people may be willing to take homeopathic doses (as it were) of golf who would not think of buying a treatise on the game and sitting down seriously to read it.

The striking peculiarity about golf is this: it looks exceedingly simple and excites the contempt of the uninitiated spectator rather than his admiration. In such games as baseball, lawn tennis, cricket or billiards the looker-on perceives the skill necessary to play well, but it is almost impossible to excite his interest in golf or to get him to understand that the game calls for any particular skill. Yet an enthusiastic player and writer says it "is probably the most scientific of all outdoor games, requiring as much accuracy of stroke as tennis" (by which he doubtless means lawn tennis) "and for more judgment than cricket or baseball." The inexperienced spectator may be mildly surprised at the distance that a golf ball may be driven from the tee, but the approaching and putting seem to him almost beneath contempt. Yet, once he has taken a driver in his hand, he will find that the ball badly topped, rolls forward a few yards, or, clean missed, remains aggravatingly on the top of the little pyramid of sand denominated a tee. But an attempt to play the game almost always makes a convert. Thenceforward the uninterested and scoffing onlooker is a golfer and will remain one while his life lasts. The recruits come from all ages, both sexes, and from experts in nearly all other games and sports.

The extraordinary popularity of the game is accounted for by the fact that it furnishes moderate and pleasant exercise for young and old, for men and women. Though anybody can play it after a fashion, to play it well requires a high degree of skill. While no one is too young to learn it, no one is too old to try. It can be played by any two people at any time of the year. Even when snow is lying on the ground, enthusiasts have been found to employ red balls.

To play good golf requires endurance, self-control and nerve, as well as skill and experience. Some of the circumstances arising in the progress of the game are particularly trying to the temper, so that the golfer gets plenty of opportunities of exercising self-restraint. To play a 36-hole match, or even an 18-hole game, in a strong, driving wind, calls for considerable powers of endurance. Oddly enough, the greatest nerve is required by what seems the simplest department of the game—putting. When a match depends upon a two-foot putt that apparently can hardly be missed, it is surprising how easy it is to fail to hole the ball.

Setting aside for the present the course, the necessaries for a golfer are balls, clubs and a bag in which they may be carried. No particular costume is really necessary, at any rate for men, though it is usual to wear knickerbockers and woolen stockings, a loose shirt, a cloth cap and an easy coat. The shoes are thick-soled and provided with some protection against slipping on the grass. Players with tender skins may find it advantageous to wear gloves, but others do not like to have anything between the skin and the club-shaft.

The balls are of hard gutta percha, with certain lines, indentations or patterns moulded on their outer surface. It has been found by long experience that balls whose outer surface is thus roughened fly further and with greater straightness than smooth ones. The surface pattern should be clear and clean cut, showing that the ball has been well moulded. The ball must be compact and at the same time elastic. A newly made ball requires keeping in a dry, dark place until it is properly seasoned, but, if kept too long, the gutta percha loses its elasticity. Probably six months will suffice to put a ball into condition for play. The ball now generally used has a core of India rubber, which increases its resiliency and enables it to be driven further. It is, however, often said that the rubber-cored ball is liable under certain conditions to duck, and that it is not quite so trustworthy on the putting-green as the ball made wholly of gutta percha. Lighter balls fly further with the wind, but heavier ones go farthest against it.

The golfer, having taken his position on the first teeing-ground, proceeds to make a little pyramid of sand called a "tee," an inch or so high, and on it he places the ball. The first club called into use is the driver, which is the most carefully constructed club in his outfit. The shaft of the driver is made of split, not sawed, hickory, the former being better because it possesses greater elasticity. The head of the driver is made of dogwood, though a recent writer of much experience as a player says that seasoned beechwood is the best material. The sole, or under side of the head, should be flat on the ground when the golfer is standing in the proper position for the swing. The weight of the driver depends largely upon the individual user, though the natural tendency is for a man to use a rather heavier club than is entirely comfortable.

The head is glued to the shaft and the place of junction is wound with twine, which is called the whipping. The part of the head which comes in contact with the ball when a stroke is made is called the face. The degree of flexibility of the club is an important matter. A stiff shaft will admit of a

heavier head than a flexible one, and will do better service with it. The weight of the head determines the degree of springiness of the shaft, and the two should be so balanced as to make the golfer feel that he has in his hands an instrument full of energy and life. Not only is the degree of spring important, but also its situation. It should be in the eight or nine inches of the shaft just above the whipping, and from that point should merge gradually in the stiff part of the shaft.

On the principle of the lever, the longer the shaft is, the greater effect does the weight of the head produce. A man who uses a short club may have a heavier head to it than a player who uses a longer club. It is said that a short, stiff, heavy club, with a very flat face, is good on windy days, as it hits a solid blow, causing the ball not to be so easily deflected. It also tends to keep the ball low, so that it is not so much exposed to the force of the wind.

The "lie" of the club is the angle which the head makes with the shaft. When this is nearly a right angle, the club is said to have an "upright lie." When the angle is more obtuse, the club has a "flat lie." The more upright the lie of the club, the nearer to the player's feet must the ball be and the shorter the handle of his club. Other things being equal, the flat-lying club sends the ball away with a lower trajectory than an upright club, and players who use a flat club have some advantage in a wind.

The position in which a player stands when driving is called the "stance." The proper distance of the ball from the foot depends largely upon the lie of the club; but in a general way the end of the shaft should just reach the player's left knee as he stands upright, the club being laid with its head to the ball. The ball should be just in a line with the hands; or in other words, the hands should not be in front of or behind the ball. Ball, club-shaft and hands should be in the same vertical plane, and that should be at a right angle with the line at which it is proposed to drive the ball. The left eye of the player should also be in this plane.

The position of the right foot is not so easily settled. Roughly, it may be said that there should be a space of eighteen inches between the feet of a golfer of moderate height when he is in position for a drive. As the feet are turned somewhat outward, the distance between toe and toe is greater than that between heel and heel. The right foot is turned out more than the left, for, at the instant of striking the ball, the right foot gives an impetus. There are good instructors who teach other positions, and good golfers who adopt them, but they may be regarded as the exceptions which test the validity of the rule, but do not disturb it seriously.

Now comes the "swing," the object of which is to hit the ball with certainty and speed. At the moment of meeting the ball, the head of the club should be traveling in the direction in which the ball is to be driven. The great majority of fine golfers stand with the right foot slightly behind the left, since to stand with the right foot advanced causes the arms to swing less freely away from the body than in the position recommended by the large majority ot professional instructors. The golf drive, unlike the batsman's stroke in cricket or baseball, is not a hit, but a swing. The club-head meets the ball at a certain point in the swing and sweeps it away, as it were. Indeed, it has been suggested that the use of the word "drive" is misleading and tends to produce faults from which the general adoption of the terms "sweep" or "swing" might save the golfer. The muscles of the golfer must be flexible, the only exception being that the grip of the left hand must be firm, since that connects the man and the club.

The swing consists, of course, of two parts, the upward and the downward, the latter tending to be an almost exact reproduction in changed order of the former. If the player gets a correct upward swing, a right downward swing will follow almost certainly. The essential thing about the swing is that the club-head should travel as long as possible in the direction in which the ball is to be driven. As the club-head swings upward from the ball, it should go back as far as possible without straining, the arms going out as nearly to their full length as is possible without stretching. The body of the player should move on its own axis, the shoulders working round the backbone as a pivot.

As regards the grip, a few inches of the shaft should be allowed to project above the left hand, so as to give greater command over the club. The club is to be held well in the palm of the left hand and not permitted to change its position. The fingers, rather than the palm, of the right hand should grasp it lightly. The left hand gives power and the right hand supplies direction to the swing. The thumbs should lie in a natural position across the shaft of the club, and not straight down it. The hands should be as close to each other as is possible comfortably, the object of the swing being to strike a swift blow and not a heavy one. The club, when it is beginning to rise from the ground, is permitted to turn freely in the right hand. It should swing back quietly and without jerk, and the gentle force of the swing should spend itself naturally, with the least expenditure of effort on the part of the player.

As the club comes up behind the player's head, the body turns gently, with the weight on the left foot. The left heel rises slightly off the ground, and the whole body turns easily on the left toe. As the club comes down the right shoulder is allowed to swing away under the head, at the instant of striking the ball. The more freely this is done the more truly will the club-head swing through and follow the line of flight of the ball. As the club comes near the ball the wrists, which were turned upward, must be turned down again in a natural manner.

By Arthur Inkersley.

THE yachtsmen of San Francisco Bay are beginning to awake from their winter rest and to discuss their plans for the coming season. The San Francisco, Corinthian and California Yacht Clubs have held their annual meetings and have elected the officers who are to serve for the next twelve months.

In fitting out a yacht for the season one of the first things to be done is to take out all her inside ballast and to see that the whole floor of the craft is clean and sweet. The materials generally used for ballast are lead and iron, though metallic ores, dross from smelting works, sand, blocks of cement or pieces of rock are also used. Materials other than lead and iron are used either from motives of economy or from a difficulty in procuring the metals. When a yacht is bought the purchaser should take up the bottom boards fore and aft, and carefully examine the materials composing the ballast. Those materials which have the highest specific gravity, that is, which contain the greatest weight in the smallest bulk, are the best for ballast. They can be stowed lower, rendering the craft stiffer under canvas; and, as they occupy less space than ballast of lighter gravity, they do not take up so much of the headroom or cabin space.

Iron may be used either in the rough condition of pig iron, as it comes from the smelters, or in the form of railroad iron. Lead or iron may be cast in molds so as to follow the internal shape of the vessel's hull. With the exception of metals altogether too valuable to use as ballast, such as gold, platinum, or quicksilver, lead is the heaviest metal known, its specific gravity taking water as 1, being 11.35. As lead costs about five cents per pound, its cost prevents it from being so universally used as it would be were its natural fitness as ballast alone considered.

The specific gravity of bar iron, which is greater than that of cast iron, is 7.70 as compared with water. Bar iron is considered the liveliest ballast that can be put into a vessel, ships loaded with it having shown much higher speed than when carrying any other cargo. But bar iron is hard to stow satisfactorily and is also pretty expensive, so that it is not very much used as ballast. Cast iron has a specific gravity of 7.26 and is more used than any other metal for ballast.

When iron is smelted, it is permitted to flow from the furnace into rudely-shaped channels on the ground and forms rough bars, about three feet long and weighing about 100 pounds; these are named "pigs." When it is intended to use iron as ballast for a yacht, molds of wood are made to fit easily between the flooring timbers, and the pigs are melted and recast so that the blocks of metal will fit in the spaces. Over this groundwork of shaped iron rough pigs may be stowed to make up the necessary weight. Sometimes scrap iron is used to fill up with.

All the ballast laid above the shaped blocks should be in square pieces, having a diagonal hole at each end, through which a grummet or an iron hook may be inserted to facilitate stowing and removing them. They should weigh from 50 to 150 pounds apiece, so that they may be handled by one or two men without difficulty. Sometimes the iron is cast in triangular pieces, each pair forming a square block. These can be stowed conveniently, especially along the sides of a boat. The small discs of iron that are punched out of boiler plates when making the holes for rivets make good top ballast, if placed in bags of tarred hemp, holding about 50 pounds each. These "boiler punchings" are of wrought iron and are heavy. The smell from the tarred sacks, however, is apt to prove somewhat objectionable in a pleasure craft, and so plain sacking may be used.

The custom is to stow ballast as much in the body of a craft as possible, thus leaving a considerable space forward and aft, in which dirt easily accumulates and causes an unpleasant smell. To prevent this, the empty spaces may be filled with a cement made up of Portland Cement and drift sand, in the proportion of two-thirds of the former to one-third of the latter. Sometimes "boiler punchings" or pebbles are mixed in with the cement to increase its weight, but it is best not to add any unnecessary weight to the cement which is carried forward or aft of the principal body of ballast. If the ballast in the body of the vessel is of cast blocks of metal they may be fitted in with and laid on a bed of cement, in which "boiler punchings" may be mixed. If this plan is followed there will be from stem to stern of the craft a floor of ballast which can be kept in a clean condition quite easily. There will be no space in which little pools of malodorous water can settle.

If the ballast at the bottom is of lead castings, the vessel will be stiffer under sail. If the remainder of the ballast is of pigs, they should be stowed on the top of the castings. In order to get the greatest amount of good from the lead ballast, it should be cast to fit the bottom of the craft, so that it may be as low down as possible. If the craft is of light draft and head room in the cabin is important, some of the ballast may be cast into blocks that will fit against the sides of the boat and may be stowed between the timbers as high as the transoms. Weight and head room may also be gained by flooring the cabin with heavy plates of lead or iron instead of wood. If "wing ballast" is fitted between the timbers, every block of it should have a little strap or shoulder at each corner, so that it may be spiked or screwed to the timbers to keep it from becoming loose or falling out of place when the boat heels over. Not a pound of ballast should rest on the skin or planking of the boat, but all the weight should be borne by the framework.

By having a metal keel a considerable part of the ballast can be placed where it will be most advantageous. For a keel lead is much better than iron, because, pound for pound, it occupies less space. A lead keel should be fastened on with screw bolts and nuts, and the heads of the bolts should be countersunk into the lead for two or three inches and wooden plugs inserted so as to prevent the bolts from being corroded.

Metal intended for use as ballast should be well cast, as rough castings full of sand and air bubbles

are light and ineffective. It adds greatly to the cleanliness and sweetness of a craft to have the ballast painted, and, to make the painting most effective, it should be done as soon as possible after taking the castings out of the sand moulds. The best paint for this is red lead boiled with linseed oil, with a patent dryer added to make it harden quickly. While a yacht is laid up for the winter, all the ballast, except that which is cemented down, should be taken out of her and the bottom of the boat thoroughly cleaned and whitewashed. This will not only render the boat sweet, but will raise her so high in the water that she will dry out and not become thoroughly soaked. Her buoyancy will be increased and her form better preserved by this treatment. It is, in fact, a good thing for a yacht to haul her up high and dry for a short time each season, so that her timbers and planking may dry out, but she must not be left long enough for her planking to shrink.

In stowing the limber ballast every crevice must be filled in with the cement. If this is not done, the limbers must be kept clear, so as to lead any water there may be down into the pump-well. It is a good thing to have the well fenced round with perforated zinc, so as to prevent oakum, shavings or refuse of any kind from getting into the well and thereafter clogging the pumps.

The loss on lead ballast is less than on any other kind, for the lead can be sold when the yacht is sold at the market price to the purchaser of the boat, or it can be taken out and sold separately.

Heavy ore, such as what is known in Great Britain as "Sulphur Ore," or the variety named by the mineralogists "Heavy Spar," when crushed into small pieces and placed in canvas bags holding as much as one man can handle conveniently, stows well and makes excellent ballast. Sand or shingle makes fairly good filling ballast, and should be in double bags, as, if it bursts the single bag and gets loose, it will create much trouble by choking up the limber ways. Ballast should be stowed amidships as much as possible so as to concentrate the weight, and this applies to a metal keel, which is outside ballast, just as much as to inside ballast. It should be low down in the craft so as to give her stability under canvas, and should be stowed compactly in her greatest beam, so as to make her lively in a sea.

If the ballast in a boat is spread fore and aft along her whole length, she will have very little life, but will be a sluggish and wet craft in rough weather. Instead of rising to an oncoming wave, she will plunge heavily into it, burying her bow and bulwarks and offering a much larger surface to the resistance of the water than her designer intended. No matter what the form of such a boat may be, she will be slow, her buoyancy amidships being overcome by the weight fore and aft, so that she is driven into the water instead of over it, and when struck by a heavy sea is overwhelmed. She will have no life. A yacht should not oppose the waves and struggle against them, but should overcome gently the resistance of the water, lifting her head to the seas quickly and buoyantly and dropping down gently when the sea has passed. A craft with her ballast concentrated amidships will be lively and buoyant; she will not plunge her head or depress her stern into the waves, but will present the least immersed surface. She will conform readily to the varied nature of the element on which she is traveling, and will go over and on the top of the waves instead of forcing her bow under water and breaking up the waves into foam. If a boat's ballast is not adjusted properly, so as to leave her in possession of her buoyancy, she will be wet, slow, uncomfortable and even dangerous. Her ballast will help her to stand up to her canvas, but, no matter how handsome her equipment or how beautiful her form, she will not "walk the waters like a thing of life." The ballast should be stowed under the floor of her cabin, not a pound of it being placed further forward or further aft. It should be remembered that every pound of weight in deck fittings counteracts the effect of the ballast and diminishes the stability of the yacht. All skylights, companions, windlasses, etc., should be made as light as is consistent with strength. If the sharp bow is not capable of supporting inside ballast, it is still less able to support a heavy weight on deck. For this reason the usual position of the windlass on a yacht's deck is objectionable; it should be placed as near the mast as possible and there should be nothing forward except the bits. For the same reason heavy taffrail lockers should be avoided.

Life is sometimes attained by stowing the ballast on some elastic material, so that the mass of metal may cease to be a dead weight. Cork shavings, cork cuttings, corks and the resilient tops of some bushes have been used for this purpose, but the weight of the iron or lead ballast soon pounds them to dust and takes all the resiliency out of them.

A craft should be ballasted down to the load water line of her draft as calculated by her designer, for it is upon the way in which her lower water lines meet the water that her success depends. It is advisable to give a good trial to a boat brought down in the water according to her construction draft, before making any change in the arrangement of the weight. As soon as her right trim is found, the ballast should remain undisturbed.

When a craft is laid up at the end of a season and the ballast is taken out of her in order to clean her thoroughly, the greatest care should be used in marking every block, so that it may be stowed again in exactly the same spot. Once the correct stowing of ballast has been ascertained, it should be carefully adhered to.

The plan of swinging ballast in a hammock suspended by ring bolts from the beams of the cabin has been tried, and in a light breeze with smooth water has been found advantageous. The effect, however, of such a device is uncertain and hard to foresee under varying conditions of wind and water.

By Arthur Inkersley.

THE New York Automobile Show of 1903 at Madison Square Garden was highly successful. The display proved that there were such things as American motor-cars, and gave good promise for the future. It did not, however, show the means from which we are likely to derive the most efficient service so clearly as the 1904 show does. The common conviction is that for general uses the internal combustion engine, fired with kerosene or some dry carbonaceous matter, is far superior to all other motors. The steam boiler and the non-condensing steam engine which is in continual need of water, seem yet much too bulky and heavy for the power they produce. Once the power is generated in a steam machine, however, it is delivered in a form more desirable than any other. Some way should be found to generate steam without using boilers of the present style and with a small loss of water. The fire open to the air must also be abolished in machines intended to be used on ordinary roads. Unless these results are accomplished the steam motor-car is certain to lose in favor.

Though many steam motor-cars were shown at the 1903 show, few appear in the 1904 display. Those that are on view possess several points in which an attempt has been made to assimilate them to gasoline motors. The internal combustion motor not only requires no bulky boiler and heavy tank filled with water to supply the boiler, but it lights and extinguishes its fire within the limits of its own cylinders. It is the only motor for the long run.

The 1904 cars have nearly reached the point of perfection, and show all the elements necessary to produce an entirely satisfactory automobile except a condensing steam engine without a boiler, and a cylinder-fired motor that will burn kerosene. These two highly desirable motors may be discovered soon, but at present they exist only as the unsubstantial fabric of dreams.

The vehicle driven by electric power is found in two forms—the handsome private carriage and the heavy truck. Neither has a wide radius of action and can not wander far from home and a charging station, but each renders satisfactory service and is certain to remain in use permanently. The much-talked-of Edison battery is shown at work for the first time, and if it is what it is said to be the electric wagon will soon come into general use and will be the regular vehicle employed for short distances. It is said that the Edison battery can not be injured either by disuse or by rapid charging and discharging.

For runs of unlimited length gasoline cars are presently much favored vehicles. They are driven by one, two, three or four cylinders, placed horizontally, vertically or in an inclined position. These cars of American design and build may be bought at prices varying from $425 to $4,000 or more, and are both well made and of a handsome appearance. Some of the cars are very simple, others are highly complicated, but all are better than have ever been seen in this country before.

That great speed may be attained by very simple mechanism is shown by car "999," on which Ford covered a mile in less than 40 seconds. It is the simplest four-cylinder machine on exhibition in Madison Square Garden. It has four vertical cylinders in front, a horizontal shaft running fore and aft to a plain bevel gear transmission to thhe rear revolving axle. That is all that is necessary to drive a car at a speed of ninety miles per hour.

Incapable of such unnecessary and impracticable high speed, but capable of going a long distance, are some very simple wagons of one or two cylinders, such as the Cadillac, the Olds and others. These are light in weight, very practical and serviceable, certain in action, easily controlled, and of low cost.

Some of the cars exhibited in Madison Square Garden are among the most highly complicated cars ever made, possessing most ingeniously intricate mechanical devices and workmanship of the highest class. Among these are the Packard and the four-cylinder Buffum cars, which are said to be perfect in workmanship and to equal the best French productions. It is believed that the high-priced American touring cars are now good and handsome enough to capture the home market and spoil it for imported machines.

The demand for high-powered, handsomely appointed cars is growing continually among people who want the best of everything and have the means to indulge their tastes. The average American, however, has to be content with a car of moderate price, and the two classes of cars have little or nothing in common. They differ as widely as do the fortunes of their purchasers. There is so much difference in construction between the car sold at $700 to $1,000 and that retailed at $3,000 to $4,000 that they are built by different makers. No maker finds it to his profit to construct low-priced runabouts and also high-priced cars, and it seems certain that cars of these two types will be turned out by different manufacturers. A manufacturer does not even find it profitable to build expensive, elaborate cars and also to construct vehicles of the convertible tonneau type. This being so, it is probable that each manufacturer will devote himself to cars of a particular class and will not try to invade the provinces of others.

Makers of cars which appeal to the same class of purchasers will find themselves exposed to strong competition and it will be easier to achieve success by making a car selling for less than $1,000 than by constructing one selling for a greater price than that.

Many air-cooled motors are on exhibition. If the motor-car is to take the place of the horse, it must be capable of being used all the year round and in any weather. In very cold weather a water-cooled motor is a constant source of trouble, causing delay and the need for many repairs. If the motor is cooled by air, the car gains in lightness and cheapness. Some of the exhibitors of air-cooled motors at the New York show were of the opinion that the water-cooled motor is doomed to early disappearance, at any rate in small cars, if not on wagons of the largest size and highest cost.

Though it is said that the French manufacturers have not succeeded very well with air-cooled mo-

tors, American automobile builders state that their experience leads them to favor air-cooling strongly and to feel great confidence in vehicles carrying no water at all. A very high compression can not be used in an air-cooled cylinder, and French builders, owing to the fact that gasoline costs twice as much in Europe as it does in the United States, are compelled to make motors using the highest possible compression, which, though economical in fuel, has other undesirable consequences. Americans generally use a lower compression than the French. The makers of the Knox claim a compression of about sixty-five pounds, while the manufacturers of the Covert cars confess to a compression of one hundred pounds, without overheating. The large number of air-cooled motors in the 1904 exhibition shows that water-cooling is not indispensable for any automobiles, and thus removes a serious objection to the use of motor-cars in extremely cold weather.

One of the most remarkable exhibits at the New York show was a sixty-horse-power motor which supplies power for a large touring car weighing 3,150 pounds and carrying seven passengers. It is said to effect a saving of forty-seven per cent in fuel. It has two cylinders, exhausting into a third cylinder, in which the fired charge is expanded.

One of the most skillful of English chauffeuses is Miss Dorothy Levitt, who seems to be a born motorist. After receiving one lesson at Hampton Court, she took the steering wheel and drove the motor-car to Regent Street, through the densest thoroughfares of the world's metropolis. She is also famous as being the first motorist to obtain substantial damages, amounting to thirty-five pounds sterling, or $175, from the owner of a horse-drawn vehicle which collided with her car. Fond, however, as she is of automobiling on land, she loves motor-launching still better. In the first competition she entered, held at Cowes, Isle of Wight, she won handsomely and was presented to King Edward VII, who complimented her on the skill she showed in a race against drivers of much greater experience. At Trouville, France, she won the Gaston-Menier Cup, a coveted French trophy. She managed her Napier boat with great nerve and skill, beating the Mercedes by more than two hundred meters. She was greeted with loud applause and an enthusiastic Frenchman bought the launch immediately after the race. The plucky motoriste says that she prefers steering a really fast petrol launch to anything else in the world. The discomforts during a race are serious, for the operator is drenched with water if the sea is at all rough and the clouds of spray make it hard to distinguish pieces of timber, tangles of seaweed, etc., which must be dodged. It is pretty difficult to keep your balance in a space about half a yard square. The waves, too, often hit the boat hard and add to the difficulty of keeping one's feet. Despite these inconveniences, Miss Levitt says that the sense of mastery over a fierce and hungry element more than compensates for the risks and discomforts.

The mile made in 39 2-5 seconds by Henry Ford in car "999" on the ice at New Baltimore, Mich., on January 12, was the fastest straightaway mile in an automobile up to that time. The machine was in perfect trim and several fast miles were covered before the attempt for the record. The snow was scrapd off the ice, on which was laid a covering of sand and cinders. The prepared track was nearly three miles long, but only fifteen feet wide. After the mile was finished some difficulty was experienced in slowing the machine on the ice.

It now appears that the trophy presented by the owner of the New York *Herald,* to be raced for once a year by teams representing the various nations, is not properly called the "Gordon Bennett" or "James Gordon Bennett" Cup, but that its proper name is "Coupe Internationale." At least this is what the New York *Herald,* which is described as a "widely read and carefully edited medium," calls it. Of course, the fact of the New York *Herald* being "widely read" affords not the slightest guarantee of its accuracy in the use of terms. Even the fact that it is "carefully edited" does not ensure accuracy, unless the careful editing is done by a man or men of competent knowledge of the matter they are editing. It is measurably certain that so clumsy a designation as "La Coupe Internationale" will never be widely adopted in a country where the people generally have little knowledge of foreign languages. It is so much the fashion in the United States to name a thing after the man who gave it that the trophy will still continue to be spoken of as the "Gordon Bennett Cup."

The town of Birmingham, England, as mayor of which the Right Hon. Joseph Chamberlain, M. P., formerly Secretary for the Colonies, gained his first experience of public life, is in many respects a model municipality. The following provision regulating the speed of automobiles certainly seems a very sensible one, and indicates the possesion of more intelligence than municipal bodies usually display. The ordinance contains this provision:

"If any person drives a motor-car on a public highway recklessly, or negligently, or at a speed or in a manner which is dangerous to the public, having regard to all the circumstances in the case, including the nature, condition and use of the highway, and to the amount of traffic which actually is at the time, or which might reasonably be expected to be, on the highway, that person shall be guilty of an offense under this act."

This is much wiser than those ordinances which impose speed limits impossible of enforcement. It is certainly quite absurd for an ordinary policeman, without any training in exact observation, and without the delicate instruments and appliances necessary to gauge the rate at which a car is traveling, to be made the sole judge of a matter which calls for really high qualifications.

A GOOD TEAM AND ITS RECORD.

1902.

May 17th, Westminster 5, Vancouver 3.
June 14th, Westminster 9, Vancouver 2.
July 1st, Westminster W, Terminals L.—Default.
July 12th, Westminster 7, Terminals 2.
Aug. 9th, Westminster W, Vancouver L.—Default.
Aug. 25th, Westminster W, Terminals L.—Default.
Aug. 30th, Westminster 6, Vancouver 1.
Sept. 13th, Westminster W, Terminals L.—Default.
Sept. 25th, Westminster 4, Kamloops 3.

1903.

May 25th, Westminster 8, Nanaimo 2.
June 27th, Westminster 13, Terminals 2.
Aug. 1st, Westminster 10, Nanaimo 1.
Aug. 15th, Westminster 16, Vancouver 4.
Aug. 29th, Westminster W, Terminals L.—Default.
Sept. 24th, Westminster 10, Kamloops 1.
Sept. 26th, Westminster W, Vancouver L.—Default.
Oct. 2, Westminster 10, Vancouver 2.

H. L. Betten, Editor.

"The poor dog, in life the firmest friend,
The first to welcome, foremost to defend,
Whose honest heart is still his master's own,
Who labors, fights, lives, breathes for him alone."
—Byron.

THE TRAINING OF THE FIELD DOG.

No. 10. Backing.

CONTRARY to general belief, the writer considers "backing" an intelligent act in no way related to the pointing instinct. The dog which "backs" naturally—that is, without being disciplined or held in restraint by the handler—does so merely through the exercise of caution and a desire not to interfere with the pointing dog, and if he has had considerable experience in point work, realizes that he is taking a secondary position to his brace mate. In most cases he is not close enough to the birds to recognize scent, but he notes the rigid position of the other dog and, having learned through experience why it is assumed, his curiosity is aroused as to the results of the point, and this causes him to stop and watch developments.

The "natural" backer, as a rule, exhibits more style than one which has been taught or forced to stop to a back, and in many cases assumes a more stylish position than the pointing dog, much depending upon the degree of interest aroused in him. Furthermore, he is likely to back at greater distances and in some instances as far as he can see the pointing dog.

In some "natural" backers the desire to take a secondary position is so great that they become almost valueless as field dogs when hunted in company with another animal. Such dogs seem to make no endeavor to locate birds, but are continually watching the actions of their brace mate and, likely as not, are trailing or following him about instead of making independent casts in search of game. The slightest hesitation on the part of the other dog is honored by

"SWEET MARIE," T. J. WATTSON, OWNER.

a back and, while the postures of the backing dog may please you for a while, they soon become monotonous and you lose interest in the subservient animal. When both dogs exhibit this same fault results may be imagined, and the continuous round of "living pictures" becomes tiresome to a degree.

The average dog is not a natural backer, and must be taught or forced to supplement his brace mate's point with a back. In some cases great difficulty is experienced in securing compliance to your desires, and the dog will not honor a back except to order, and then with a total lack of interest and animation, as evidenced by the absence of style and rigidity.

In reality, the act of backing is of little value, beyond that it adds to the attractiveness of the scene afforded by field dogs when working on birds. It can not be considered an act of utility, for the time lost in backing might be used to better advantage in con-

HIS FIRST BACK.

tinuing the search for birds. The dog could readily be taught to blink a pointing dog so as not to interfere with him in any way, and thus be afforded additional opportunities to find game and add to the bag. This, of course, is reasoning from the pot hunter's standpoint, for no sportsman who has hunted over a well trained brace of field dogs which exhibit nice style on point or back would be guilty of training his dogs in the above manner.

If the sportsmen were inclined to own only one dog and to hunt without companionship, there would be no necessity to train a dog to back, but in the majority of instances he goes afield in company with some boon companion and to ask such to put up with the antics of a half-trained dog which refuses to back and steals the points of another animal is presuming too much on friendship. The spirit of jealousy is easily aroused in dogs, and few can stand the constant encroachments of another which steps in ahead and takes his points, or flushes the birds he has found, without retaliating or giving vent to their feelings in an exhibition of rankness.

In teaching a puppy to back it is always advisable to hunt him in company with a steady, reliable dog which can be depended upon to hold his points under trying conditions. If possible, he should be a stylish dog on point, so that the puppy may be deeply impressed by his pose and rigidity. By all means avoid a dog inclined to false pointing, or one which drops to his points or assumes a listless position when standing game. In the case of the former, the puppy soon learns that his brace mate is unreliable and finally refuses to pay any attention to him, while when hunted with a dog lacking in style he can not always distinguish between a point and mere show of hesitation on the other dog's part, and is not inclined to honor the point until he determines for himself whether or not it is bona fide.

In the case of a natural backer, the tendency to honor his companion's find may be evidenced even before he realizes the true value of a point, and little difficulty should be experienced in perfecting that branch of his education. The majority of puppies, however, are not inclined to stop when they see another dog on point, but will endeavor to locate the birds for themselves and either steal the point or go in to a flush.

If possible, the young dog should be called up to back in such a manner that he is suddenly confronted with the sight of the pointing dog, when more than likely his astonishment will cause him to stop momentarily. At this juncture the handler should approach him from the front and, with extravagant gestures and a great show of caution, order him to "ho," or wave him back when he starts to encroach on the pointing dog. These unusual proceedings will deeply impress most puppies, and, before they have recovered from their surprise and have decided to investigate the point, the handler is in a position to checkmate their ulterior designs and can steady them on back with the same methods used in developing their stanchness when on point. With headstrong or jealous dogs it may be necessary to use the check cord and whip in exacting reliability in backing, and in isolated cases dogs can not be taught to honor a point and must be

"LADY," JOSEPH TERRY, OWNER.

dropped to order, or if they are persistent in their efforts to steal their brace mate's point they must be punished until they will blink a pointing dog.

It is not at all necessary that a dog should back at sight of a pointing dog, and he should be allowed to approach within a reasonable distance before he is required to stop. Once he has assumed a rigid position, however, he should never be allowed to creep up to the pointing dog, and every evidence of unsteadiness should be checked. When he moves up a foot or two force him back to his original position, and if he persists in his efforts to crowd his brace mate, pinch his ear or apply slight punishment until he will stand firm. Of course, in event the finding dog alternately roads and stands—as he is apt to do when the birds run from his point —the backing dog should be allowed to move up after his brace mate has left his position on point, but he should stop instantly when he perceives him make another rigid stand. It is assumed that, as long as the finding dog shows by his actions that he has properly located the running bird or birds, he should be allowed the privilege of working out the find, and not until he shows uncertainty as to their position should the backing dog be permitted to cast ahead and take a hand in locating them.

The interest in field dogs is greatly augmented when the sportsman is permitted to view the work of a snappy, well-trained brace of dogs, in place of that of a single individual. The competition between dogs is often very marked, and the rivalry between them causes them to instill an amount of vim into their work which is sometimes absent when they are hunted alone. The sight of a fast, stylish dog stopping to a point in an abrupt manner, while his brace mate establishes a back in the same snappy way, is one which gladdens the heart of most sportsmen; and the clear-cut picture they present as they stand before one motionless and intent in postures such as would delight the artist, are apt to be recalled time and again as one's thoughts revert to upland shooting.

NOTED POINTER SIRES.

NO. 4—CHAMPION JINGO.

In the first flight as a field-trial performer and with a record second to no American bred pointer as a sire of winners, Ch. Jingo must always occupy a place in the front rank in the history of his breed.

Ch. Jingo was bred by the late Edward Dexter, proprietor of the famous Charlottsville Field Trial Kennel, and was a dog of faultless conformation. His sire was the well known Mainspring, by Saltus Mike out of Saltus Romp. His dam, Queen III, was by Pontiac out of Kent's Queen, and he combined in his breeding the blood of such great dogs as Mike, Bow, Drake, Faust, Hamlet and Sefton's Sam.

While hardly as brilliant a performer as Ch. Rip Rap, there were few dogs his equal on the prairies, where his exhibitions of speed, range, endurance and wonderful bird sense challenged the admiration of all who were privileged to see him run. Ch. Jingo placed to his credit nine wins in trials, including first in the Northwestern Champion Stake. His consistency was remarkable and he never exhibited that unaccountable lack of form which marred the records of some of the most brilliant dogs.

Ch. Jingo's record as a sire is wonderful when one considers that he was almost five years of age before his valuable qualities were recognized and his services were in great demand, and died when he was a trifle over eight years of age. During these three or four seasons he sired the following well known winners:

Dot's Daisy, Two Spot, Lad of Jingo, Drillmaster, Dot's Jingo, Jingo's Pearl and Jingo's Boy (all out of Dot's Pearl), King Cyrano, Young Jingo, Ightfield, Cloie, Jingo's Light, Jingo's Hessen, Sister Sue, Gold King, Gorham's Jing, Keystone Jim, Royal Chic, Jingo's Romp, Jingo's Cash and Alix II.

Besides the above winners he has sired numerous dams of winners and his sons are proving themselves prepotent sires. Prominent among the latter is Young Jingo, a splendid field-trial performer and sire of Queen Mab, Eve's Jingo, Nebraska Ben, Pearl's Jingle, Gray's Pearl, Petronella, Lord Derby, Jingo's Bang, Eve II and other field-trial winners. Other sons who are proving successful in the stud are Lad of Jingo, sire of six winners (including the well known Alpine Lad), Jingo's Light, sire of four winners, including Doc, Light, Percival Jingo and Bee Line; and Jingo's Pearl, sire of Jingo's Nellie, Jingo's Osceola and Tip Fauster.

ENGLISH SETTER SIRES.

COUNT WHITESTONE.

Prominent among the younger sires of note is this grandly bred individual of the famous Ch. Lady's Count Gladstone-Jessie Rodney family.

Count Whitestone was a winner in five trials, including third, in the Iowa Derby of 1900 when only 10¾ months old, and is already the sire of six winners, including the well-known Derby performer, Pioneer (considered by many the best young dog of the year), and Uncle Jim, winner of the last Pacific Northwest Derby.

Bred to the right line of bitches, Count Whitestone promises to make a splendid record as a sire, the majority of his get showing a great deal of quality. It is a significant fact, however, that Count has produced only from so-called "outcross" bitches possessing in the majority of instances a strong cross of Prince Lucifer's blood, and it is likely that the best results in the future will be had from such combinations of blood, and from bitches which do not show the refining influences of in-and-in breeding.

FOOD FOR PUPPIES.

One often hears the assertion made that "meat should never be fed to young puppies, as it is deleterious in its effect upon the system and is a potent developer of fits and intestinal parasites."

I wish to impress upon the minds of fanciers that statements as above were never based on facts, for where one puppy suffers from the injudicious feeding of meat a dozen others suffer irreparable injury from the withholding of this essential food.

Flesh is the natural food of all carniverous animals, and it has been conclusively proven that individuals of the canine race can be successfully raised when confined strictly to a meat diet.

On the other hand, experiments have shown that an impoverished condition of the entire system results from the constant feeding of preparations which contain no meat, and where such a course is pursued from earliest puppyhood the chances of developing a perfect specimen are about one in a hundred.

One of the first evidences of malnutrition in puppies is the development of rickets. In place of growing up into well rounded, active, straight-limbed specimens, the puppies present a scrawny appearance, with dry, harsh coats, flabby muscles and a listless manner. The slightest exertion tires them and they are inclined to lie around huddled in heaps, as owing to the impoverished condition of their blood they are very sensitive to cold and have not the strength to exercise as healthy puppies naturally will. Their appearance in many instances would indicate the presence of worms, which may or may not be present in harmful numbers, and as the disease progresses, a malformation of the bones, especially those of the legs, is noted, the joints taking on a bulbous form, while the center sections, becoming soft and spongy, bend under the slight weight imposed upon the legs by the body.

While it is true that in a few instances a condition as above may be traced to the influences of a rachatic or scrofulous sire or dam, the majority of cases are due to the withholding of proper bone and muscle-building food; even the administration of phosphates of lime in large quantities will not supply the elements needed. In large breeds, such as St. Bernards, Great Danes and mastiffs, there is a tendency toward malformation due to the excessive weight imposed upon the legs before the bones have become hardened, and for such the diet should be carefully regulated, starchy foods should be eliminated as much as possible. Regular exercise should be imposed, as puppies of these breeds, owing to their clumsiness, are not inclined to violent or even moderate exertion. As for pointer and setter puppies, they are sure to exercise sufficiently if given a roomy yard in which to romp about, and the only consideration need be the feeding of nutritious food, together with plenty of sunlight and fresh water.

Puppies should be accustomed to the taste of broth before they are weaned, and even a little toasted bread or well boiled rice is allowable in the broth at this stage. They should also be fed limited quantities of fresh skimmed milk warmed to blood heat, and this can also be thickened with occasional bits of cracker or toast. Sloppy food of the above nature may be fed during the first week after weaning, it being advisable to feed little and often and not less than five times during the day, commencing as early in the morning as possible and giving the last food late in the evening, so that there is no long interval between meals. After the first week a little finely chopped boiled beef or mutton may be added to the thickened broth and an occasional meal of thick sour milk mixed with bread or crackers be given in place of the fresh milk diet. The following week the puppies may be allowed to have large bones on which to gnaw, as they materially aid digestion by causing a copious flow of the gastric juices and also afford certain desirable elements necessary in the building of bone and muscle. Vegetables, especially onions and turnips, may now be cooked in the broth, as they have a laxative effect upon the bowels and can do no possible harm. You may also boil barley or rice in the broth, so that a variety of foods may be of-

fered, and a few weeks later may substitute various meals for the rice or barley, great care being taken that they are not used until thoroughly cooked. Limited quantities of raw and cooked meat may be fed after the puppies arrive at the age of eight or nine weeks, but the main dependence should be on sloppy foods such as described above. In feeding raw meat it should be chopped fine or fed in such a way that it can not be bolted in large chunks, as when eaten in such a manner without mastication it is very difficult to digest. Where a large number of puppies are kept it would pay to purchase a small meat chopping machine such as is used by butchers. When raw meat is fed in this form it should follow the regular meal and be given only in small dabs, so that the gastric juices may act upon it at once. In such form it is easily digested and highly nutritious.

Never feed tainted or unsound food. It is far better to let the puppies fast than to irritate the digestive organs and bowels with food which is undergoing fermentation, as it sometimes takes days or even weeks to repair the damage. Feed small amounts of food often rather than to allow the puppies to gorge themselves and overload their stomachs by partaking of one or two large meals. Observe proper care as to the supply of absolutely fresh water; provide clean, dry and warm sleeping quarters, sunlight and abundant room for exercise and use intelligence in regulating the amount and nature of the food; feed about 50 or 60 per cent of starchy or vegetable food and the balance in the form of meat, broth or some other preparation of flesh; give them an occasional bone to gnaw on (always remembering that it must be a large bone, free from splinters), also an occasional Spratts biscuit, fed dry as it comes from the packet or box; keep them free from intestinal parasites, and your puppies will grow up into strong, healthy, straight-limbed specimens of their breed, and never show any deleterious effects from partaking of a diet composed largely of flesh.

THE WORLD'S FAIR DOG SHOW.

The kennel show at the World's Fair in St. Louis will be held Tuesday to Friday, November 8 to 11. In order to conform to the international character of the Universal Exposition, it will be held under its own rules, in which, however, full recognition will be given to the kennel clubs of the respective countries which may be represented. A certificate showing registration in the stud-book of the country from which the animal is exhibited will be required. Thus any applications for the entries of dogs of recognized breeds owned in the United States must be accompanied by a certificate in a prescribed form showing registration in the American Kennel Club. Such certificates from secretaries of kennel clubs in other countries must be attested by the chairman of that country's commission to the World's Fair. According to the preliminary plan entries will close September 20. The classification is intended to include only established breeds of record, and work upon it and other details relative to the Universal Exposition kennel show are now well in hand under the direction of the Chief of the Department of Live Stock, Mr. F. D. Coburn.

The Universal Exposition kennel show of 1904 will be held for the promotion of the special interests of dog fanciers in all parts of the world, and on this account judges will be chosen for their especial qualifications and their intimate knowledge of the characteristics and qualities making valuable the respective breeds upon which they are to give judgment. The rules will provide for reckoning of ages from date of birth to September 1, 1904.

In some ways the World's Fair kennel show rules will make for new standards, but only on such lines as are worthy of a universal exposition and creditable to the industry concerned. The plan for holding the dog show at the World's Fair and a preliminary sketch of the classification and rules have been submitted to the officials of the American Kennel Club and the Canadian Kennel Club and approved by them.

FIELD TRIALS FOR OREGON.

Present indications point to the early organization of a field-trial association in Oregon, and it is more than likely that if all plans carry the inaugural meet will be held some time this fall on grounds in the vicinity of Portland.

Prominent among the sportsmen identified with the project are Dr. E. F. Tucker, J. A. Taylor (president of the Portland Kennel Club), R. N. Davis, D. P. Ewen, F. Wormsley, Capt. J. M. Baker and F. V. Holman, and these are very enthusiastic over the prospects for holding a successful meet on Oregon grounds. There can be no question as to the success of such a move if instituted by such sterling sportsmen as the above, and it is likely that the Willamette Valley will afford grounds equal, if not superior, to any on the coast. Californians will be certain to support such a movement in their usual liberal manner, as they are anxiously awaiting the formation of a circuit of coast trials. Reciprocation on the part of the various clubs would lead to a largely increased number of starters in coast trials and do much to further the interests of the field dog.

MEETING OF THE PACIFIC KENNEL CLUB.

At the annual meeting of the Pacific Kennel League which was held in Seattle recently, the advisability of affiliating with the American Kennel League was thoroughly discussed by the various delegates present and it was decided to ask of that association full recognition of all winnings made at Coast shows held under Pacific Kennel Club rules. The appointment of a governing board empowered to act in all matters pertaining to shows on the Pacific Coast is also desired.

Unless the A. K. C. sees fit to make these concessions it is certain to lose such support as it now possesses, as in event of refusal the Pacific Kennel League will be thoroughly reorganized and a decided effort made to induce the publishers of the Field Dog Stud-Book to include all breeds in their register. Succeeding in this, the Pacific Kennel League would have plain sailing and the rule of the A. K. C. on this Coast would be over for good and all.

SAN FRANCISCO KENNEL CLUB ELECTION.

The annual meeting of the San Francisco Kennel Club was held Monday evening, January 11, 1904, at the Occidental Hotel.

The following directors were elected: John E. de Ruyter, W. C. Ralston, W. S. Kittle, John L. Cunningham, Charles K. Harley.

The following officers were elected: Charles K. Harley, president; John E. de Ruyter, vice-president; John L. Cunningham, secretary and treasurer.

The bench show committee consists of the following: John E. de Ruyter, John L. Cunningham, Charles K. Harley.

The eighth annual show will be held in Mechanics' Pavilion in the month of April.

IN THE EASTERN KENNEL WORLD.

(Special Correspondence.)

NOW that restfulness has succeeded to the rush and hustle of the two dog shows that took place, the one at Madison Square Garden and the other at Claremont Rink—the concensus of opinion is that the Brooklyn show was the best of the two, and deserves the highest commendation. In the first place, it is less than a twelvemonth since a small number of real good fanciers broached the subject of organizing a kennel club and holding an annual show in Brooklyn; that their judgment was good the results have proven. The judges were well chosen, but the speed of the judging was a new revelation and done at a gait hitherto unknown in these parts, and had Mr. Codman been present the first day the entire list would have been finished by nightfall; as it was the chief specials were disposed of on the second day. The daily press stated that there was much dissatisfaction at the awards of the judges, but a careful canvas of the exhibitors established the fact that the "Kickers Class" barely reached two per cent, an unusually small amount. It is true that some of the awards differed from those made at Madison Square Garden, but that might be expeeted, as the judges were not the same, and moreover judging is an art where the prime factor gives his decision according to the eye and not to a fixed scale. At the best it is a thankless task, and a just judge should have the confidence and sympathy of all those interested. Few men take defeat with Christian resignation, and non-winners at dog shows are no exception to the rule, and should be pitied rather than condemned. Competent critics were unanimous in their commendation of the judges of both shows, and especially the management of the Brooklyn show, as well as the quality of the dogs benched, and what more could exhibitors ask. There was less sickness at these two shows than usual, due of course in some degree to the better condition of the dogs at the beginning of the annual circuit, but we think due more especially to the fact that show managers are beginning to learn that the obnoxious over—alleged—sanitation of show-rooms with loud-smelling disinfectants must be done away with, not only for the comfort of the visitors but in the interest of the health of the dog on the bench. The disinfecting of dog shows in the East has become positively a nuisance, but fortunately for those at these two shows the protests from the masses had led the committees to guard against a repetition of this unpleasant practice, and we had the pleasure of breathing some pure air in the show-rooms. There is another matter in connection with benching dogs that needs attention, that is the disinfection of the benches, especially those that are rented out and transported from show to show in rapid succession; there is no time or evident desire to keep them in good sanitary condition, and as a consequence they are fruitful sources of breeding and conveying the germs of distemper, and after being used for a few shows few if any dogs, puppies especially, escape contracting distemper. The supposed vigilance of the club veterinarian usually counts for nothing so far as seeing that the benches are in proper sanitary condition are concerned, and seldom removing dogs that are suffering from the disease, so that before the circuit closes nearly all the young dogs are sick. Every kennel club, if not able to own its own benches, should insist upon those who hire them out to thoroughly disinfect them under the supervision of some competent authority.

Now a word about feeding dogs at shows. We hold that the present system is radically unfair to the dog, feeding him for three or four days on a diet that of course may be sufficient to sustain life, but in no wise suitable to his needs, especially those that have been transported long distances and had but little if any nourishing food on the way, and will not until they return back to their home kennels. Dog biscuit is an excellent food, but a show dog needs something more nourishing than a continued feed of biscuits, and many owners see to it that their dogs fare better than the show menu calls for, and as a consequence are obliged to go outside the show-room to seek in near-by restaurants such scraps as they can pick up to assuage the hunger of their dogs, for they will not consent to have them fed on biscuit served in dirty tin pans, mixed with sanitary sawdust and straw and spiced with the dust from the sweepings of the floors. All this might be changed if the committee would let out the privilege to some responsible caterer to furnish cooked dog food, to be served in quantities to suit the patrons of the show. A nice mess of well-cooked beef with a proper admixture of vegetables would make a toothsome dish for the dogs and be highly appreciated by its owner, and should be had at a reasonable price and at all times. You cannot go to a show without seeing scores of notices posted or chalked on kennels "Don't feed this dog," a legend that speaks louder than words for a kind master, and one that values the comfort and health of his dogs.

Just one thing more and we have done with suggestions: That is the ventilation of show-rooms at night, a matter we think of great importance and worthy of the attention of bench committees. There is a tendency on the part of night attendants to throw open the windows and ventilators as soon as the visitors have left the building, so that the unpleasant odors of the day shall pass off. This is almost universally done without regard to the tired and sleepy dogs, worn out with the excitements of the day, and who are in just the physical condition to feel the draughts of air such as they have not been accustomed to at home, and the consequence is that they contract colds which are not readily shaken off and sometimes are developed into pneumonia, and the dogs die as the result of this heedlessness on the part of the show employees. Great care should be taken to guard against the night draughts in exhibition halls for the dog's sake, and it is largely due for this want of proper ventilation that very many dog owners are in the habit of paying the customary "night deposit" and taking their dogs home with them for the night. It is a pitiful sight to see the poor dogs in their vain endeavors at night to avoid the killing draughts and try to get some much-needed rest after the excitements of the day. Instructions to the chief night attendant by the superintendent of the show should correct this evil, and there are but few human being so devoid of the love of the dog but would heed these orders and try and make the dog more comfortable in his search after comfort during the quiet night hours allotted to his rest.

The growing interest in the dog among all classes of people is becoming more apparent year by year, and the time is drawing near when no agricultural show will be considered up to date that does not have its dog show annex. A few weeks ago while at the great Industrial and Agricultural Exhibition at Toronto, Canada, we noticed that the dog show held under the

auspices of the exhibition, and which lasted four days, was most liberally patronized. In fact, the returns showed that one in every seven persons who paid 25 cents to enter the grounds paid an extra 10 cents to visit the dog exhibit, and the visitors evinced more than ordinary interest in the dogs on the bench, and this was especially noticeable in the farmer class, who made special inquiries as to the breeds best suited to their needs for farming purposes. These people when informed that the collie was probably the best dog for them immediately sought them out and plied their owners with innumerable questions as to their dispositions and adaptability for farm work. In the East we find that the agricultural fair managers are awaking to the fact that dog shows are becoming very popular and are a drawing card at shows, and that the new departure tends to be of great value not only as an entertainment but as an instructor. This added feature to fairs is having the tendency toward the establishment of new kennel clubs all over the country, and in sections where a year or two ago such a thing was never even dreamed of. This interest means well for the canine race, and is of great value to the fraternity at large. The credit of this marked change in man's feeling to the canine race is largely due to the teachings of those magazines and papers that make a specialty of dealing with the higher class sporting news, and of late the daily press has fallen into line and is now an able ally of those journals that for many years have been the dogs' best friends.

It is already apparent to thinking kennel owners that F. D. Coburn, chief of the livestock department of the St. Louis World's Fair, has conceived and will inaugurate a new departure in canine exhibits in this country when the sheep dog trials come off at the fair, and there can be no doubt but that this novel exhibition will attract thousands to witness, and in due time will call into existence all over the country similar exhibitions of the skill and intelligence of this class of dogs. To-day the dog-loving public enjoy Whippet racing, and where indulged in the people flock to see them, but this is only a form of sport, while sheep-dog trials would furnish to the farmer and herdsman an entertainment of practical value as well as interest. This new entertainment is bound to bring the collie into prominence, and we may expect to see the breeders bestirring themselves to breed the dogs that will fill the requirements of the farmer, herdsman and ranchman. Mr. W. A. Sargent of the Maplemont Collie Kennels, at Albany, Vt., has already turned his attention to preparing to take the leading prizes at St. Louis, and is breeding and training some of the finest collies in the country for the work of handling flocks of sheep and herds of cattle, and has already sent out a large number of splendid dogs which have given great satisfaction to their purchasers. He has a large farm and well stocked, and hence has the opportunity to give his dogs practical training.

The New Jersey State Game Wardens are using pointers and beagles in bringing to book the hunters who are violating the laws of the State by shooting without a license. At the ferries at Camden, opposite Philadelphia, and of Jersey City and Hoboken, opposite New York, the wardens are stationed with their dogs, and woe betide the hunter who heaves in sight carrying a bag or suit-case, for if he looks as if he had been after game the dogs are put on their trail and if the bag or grip contains birds the pointer "stands" as if it had discovered a covey of quail in the field; but if the beagle gets the scent of rabbits it sounds its warning note, and the hunter is at once halted and his grip is searched; if the evidence is there away he goes to the august presence of the justice of the peace, who is in continuous session day and night, is fined $10 if he has no license, and from $10 to $20 for every bird or rabbit found in his possession, besides the fee of the J. P. Nearly $1,000 was collected a few evenings ago in Hoboken alone as the result of using sporting dogs to carry out the laws of the State. As Hoboken is largely peopled by sturdy beer drinkers who were wont to let too many hunters slip, a raw-boned Yankee suggested the dogs as aides to the wardens, and the suggestion has proved a great success.

ADLETS

Advertisements of subscribers of For Sale, Wants, Exchanges, etc., will be inserted under this head at 15 cents per line for first issue, and 10 cents per line for each issue thereafter. Eight words or fraction thereof measured as a line.

Cash must be sent with order to insure insertion.

FOR SALE — Several high-class English setter bitches of all ages, suitable for breeding or hunting. The strain that wins. California Kennels, Del Rey, Cal.

* * *

FOR SALE—Game Heads, Fur Rugs, at low prices. Prof. Gus Stainsky, Taxidermist of world-wide reputation, Colorado Springs, Colo.

* * *

WANTED—Every sportsman to know that in Montana we have plenty of big game for all. Elk, deer, sheep, bear, and a variety of small game. Can begin hunting second day out. Address A. R. Hague, guide, Findley, Mont.

* * *

FOR SALE—Pointer puppies five months old by Dingos Pearl ex Hals Glory—Hal Pointer. Ship on approval.
E. E. Hiatt, Fairmont, Indiana.

* * *

IRISH TERRIER—AT STUD—"Bolton Woods Despot." (Imported). Some choice pups by same dog, ex. "Brinscall Droleen," for sale. Grand specimens. Particulars, Ollard, Tacoma.

* * *

KEEP YOUR DOGS in good health. Use Eureka Dog Remedies—chocolate-coated tablets—worms, distemper, etc., 25 cents. Circular on diseases mailed free. Roach Manufacturing Company, 391 Kosciusko street, Brooklyn, N. Y.

* * *

EXCHANGE—Foción Soto U., apartado 106, Bogota, Colombia, postage stamps and picture post cards collector. Exchange desired Send me your duplicates; I will send you same value in Colombian stamps.

* * *

FOR SALE—Litter of evenly marked blue ticked English setter puppies; sired by the Imported Setter Rumney Ranger (Sir Bentinck—Lady Dorothy), dam Alberts Nora (Alberts Duke—Sapho). These puppies are of the best winning blood in England and are good ones; $25 and $35 each. T. P. McConnell, Victoria, B. C.

* * *

MR. GEORGE FLORENCE offers for sale his entire kenel of prize-winning smooth-coated Fox Terriers, including that grand stud and show dog Wandee Revelry (bred by R. Winkinson, England), by Saltsear Gambler-Saltsear Cheerful—a winner of fourteen first in England and America, and one of the best Fox Terriers living. No reasonable offer will be refused for this dog.

Queen, whelped March 1, 1900, by Aldon Artist-Countess. Winner of first and special for best Fox Terrier bitch in show, Spokane, 1903. Price, $25.00.

Victor, whelped July 24, 1902, by Ch. Norfolk Veracity-Norfolk Witchcraft, one of the best-bred terriers living, cost me $148.00 from Norfolk Kennels. Price, for quick sale, $50.00.

Pearl, whelped March 26, 1901, by Norfolk Truman-Aldon Esther. Winnings: Three firsts Winnipeg, first Brandon. Price, $25.00.

* * *

Puppies by Wandee Revelry-Pearl—three dogs and three bitches, seven months old. These are beautiful puppies and will make future prize-winners. Price, $25.00 each.

Address all communications to George Florence, 103 Douglas street, Victoria, B. C.

TO SPORTSWOMEN.—There are many ladies who would gladly improve an opportunity to kill bear, cougar and deer if the same could be easily and *safely* done. I am in a position to guarantee any sportswoman a shot at such large game, under conditions that will assure success and absolute safety, for a very moderate compensation. If interested, apply to the Editor of WESTERN FIELD, to whom I am permitted to refer. "HUNTER."

* * *

FOR SALE—The great prize-winning English setter bitch Champion Albert's Rosalind, sired by Count F. (Imp. Viscount and Lady Novice) and Cassie Sheldon (Ch. Sheldon and Nellie Bondhu). Rosalind is thoroughly broken in the field, perfectly stanch to shot and wing and a sure finder of dead birds (will point or retrieve dead to order). She is one of the highest class bench bitches in America, having won first prizes at New York, Wissahickon, Victoria, Seattle, Portland, San Francisco and New Westminster. She is a producer of winning puppies and is the dam of Mallwyd Joe, first novice, New York, 29 entries; Count Rego, a winner of 15 firsts, every time shown; Fanilla and Victoria Fleet. If you want a high-class bitch to win on the bench, or to use as a satisfactory shooting dog, Rosalind will suit you. Price $150.00; just half her value. T. P. McConnell, Victoria, B. C.

* * *

FOR SALE—Eastman-Walker 5x7 view camera; reversible back, rising front, double swing, cost $32.00; Gray's No. 4 Periscope lens, cost $15.00; three double plate-holders, cost $3.00; tripod and head, cost $3.50; Low Kazoo shutter, No. 1, cost, $6.00; canvas carrying case, cost $1.50; total, $61.00; all but case in excellent condition; sell for $23.00 cash. Arthur Inkersley, 508 Montgomery street, San Francisco.

TRADE TOPICS

A FAVORITE BALL.

The new 1904 G. B. I. Championship Tennis Ball, which was recently adopted by the U. S. N. L. T. A., will strongly appeal to all tennis players on account of its uniform excellence. It is a thing of beauty in its lines and should easily satisfy the most fastidious tennis player.

* * *

MOUNT YOUR OWN TROPHIES.

The true sportsman does not find all his pleasure in simply killing game. He sees in the beautiful plumaged bird, or the majestic head and antlers of the deer or elk, a magnificent trophy for the den or home. Too many of these valuable specimens are allowed to decay or be ravaged by insects, when if properly mounted and preserved, would be lasting mementoes of the good times enjoyed in the field. It is often difficult to send these choice specimens to the taxidermist, or the necessary cost is more than many feel justified in paying, yet there is no reason why every man can not be prepared to do work of this nature for himself. Taxidermy is being taught with remarkable success by a mail course, by the Northwestern School of Taxidermy, of Omaha, Nebraska. It is well worth the time and expense for every sportsman to take this course. A letter addressed to the School will bring you complete information concerning the methods and terms.

Antique Spanish Inlaid Chest

WITH FINE WROUGHT IRON LOCK AND KEY

McCann, Belcher & Allen
600 Sutter St., San Francisco

Dealers in Antique Furniture, Etc.

One of BENGUIAT'S Rugs

Mrs. George Gould has in her Louis XVI room an Antique Giordes (Yordes) rug which is believed to be the biggest in the United States. We are the lucky possessors of a larger one which undoubtedly is the biggest of its kind. We will sell it accompanied by a few small Antique Giordes prayer rugs for fifteen thousand dollars, ($15,000.00.) To be shown only by appointment.

H. Ephraim Benguiat & Son

OPP UNIVERSITY CLUB 723 SUTTER ST.
SAN FRANCISCO, CAL.

G. K. CLAXTON

COLLECTOR OF
ORIENTAL AND EUROPEAN
ANTIQUES

"La Voluta"
Italian marble bust by "Michele Sansebastiano," Genoa, Italy.

213 POST STREET
SAN FRANCISCO CALIFORNIA

THE NEW LIGHT CURE
WE CURE CONSUMPTION

One of our Physicians states: of 84 cases treated during the first and second stages 53 were cured. Call and investigate. With the aid of our

LOCOLITE

We cure bronchitis and catarrh. It cures all diseases of the liver, stomach, kidneys and bladder. It cures cancer, eczema, Lupus, etc. It cures rheumatism, gout, sciatica and valvular disease of the heart. For diseases of women it is peerless. In cases of sleeplessness and nervous diseases it has no equal.

The German Medical Institute
NO. 6 EDDY STREET
ROOMS, 18-19-20 PHONE JOHN 5386
HOURS, 9-11 A. M. 1-4-6-8 P. M.
SUNDAYS BY APPOINTMENT

THE PETERS CARTRIDGE COMPANY'S ANNUAL REUNION.

The annual reunion of the salesmen and demonstrators of The Peters Cartridge Company, which was held in Cincinnati, January 11 to 15, was the largest gathering of ammunition salesmen and expert shooters ever assembled. The meeting was, of course, held primarily for the discussion of business matters, but the company had also arranged a programme interspersed with pleasant and entertaining features designed to make the week highly enjoyable as well as profitable. Tuesday, at 10 a. m., a conference with the salesmen took place in the offices of the company, and at 2 p. m. Mr. O. E. Peters, president, delivered an address and gave general instructions regarding the work of the year 1904. In the evening a "smoker" for the salesmen was given at the Business Men's Club, presided over by Mr. F. C. Tuttle, treasurer of the company. Wednesday was largely devoted to the discussion of business. In the evening a theater party was given for the salesmen and a number of guests, and on Thursday morning two special electric trolley cars took the entire party to the factories of the company, located at King's Mills, Ohio. Dinner was served at the King's Mills Hotel, where everything that goes to satisfy the inner man was provided. At 4 p. m. the return to the city was made and that night at 6.30 the annual banquet was given at the Business Men's Club. This was a most elaborate affair, covers being laid for seventy persons. The tables were handsomely decorated and suitable music was rendered during the several courses. The menu was quite novel, embodying in a prominent way the letter "P," the trade-mark of the company, and was all that the most exacting taste could desire.

MENU.

Points on shells.
Puree of peas.
Peanuts. Salted pecans. Pickles.
Pompano Persillade.
Pommes Parisienne.
Punch Romaine.
Pork tenderloin, roasted.
Petite pois. Pommes Massena.
Points de asparagus.
Peach ice cream. Cake.
Pots of coffee.
Principe de Gales cigars.
Shop Talk. Mr. O. E. Peters, presiding.
Music by King's Mills Orchestra.

Mr. O. E. Peters was toastmaster and delivered the opening address. The cover of the menu card was made of a folded League shell hanger, which gave to it a very unique appearance and made a handsome souvenir of the occasion. Friday, January 15, was spent at the grounds of the Cincinnati Gun Club, where a number of team races and exhibition shooting were indulged in. Prior to starting to the grounds the salesmen sprung a little surprise on Mr. F. C. Tuttle, the treasurer of the company, presenting him with a handsome gold watch. The exhibition shooting of Captain Bartlett, Captain Hardy, LeRoy Leach, Frank Carter and Wallace Miller was interesting throughout and many exceedingly difficult shooting feats were performed with rifle, revolver and shotgun.

* * *

GOOD SHOTS USE GOOD SHELLS.

L. H. Kimmel, one of the coming shots of the West, broke 124 out of 125 clay birds at Bosco, Ill., on January 9. This is remarkable shooting on the part of an amateur and was done with U. M. C. Factory Loaded Shells.

The Sunny South Handicap, held at Brenham, Texas, January 18 to 23, was won with U. M. C. Shot Shells. Turned E. Hubby, Waco, Texas, won the live bird event with a straight score for three days. W. H. Heer, Concordia, Kansas, Took the handicap for targets. Perfect scores show the quality of the U. M. C. ammunition.

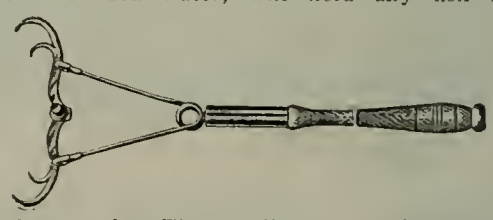
* * *

SUED FOR INFRINGEMENT.

The Union Gas Engine Company brought suit recently in the United States Circuit Court against the Standard Gas Engine Company for infringement by the latter of the gas engine patents belonging to the former. On account of the alleged infringement, the Union Company asked for an injunction and damages against the Standard Company.

THE BEST YET.

A little "Marble trick" that will appeal instantly to every angler after big fish, is the Marble Automatic Gaff, now on exhibition at this office. This little implement needs only to be seen and handled to be at once appreciated. It is absolutely sure and marvelously quick in action, it being impossible for a fish once brought within gaffing reach to escape. The larger sizes which are nickel-plated to resist the action of sea water, will hold any fish from



10 to 60 pounds. The smaller ones will hold fish from 1 to 20 pounds. When gaffing very large fish it is advisable to have a rope attached to the end of the handle and also to the boat or your body, because the fish is liable to jerk the gaff out of a person's hands. The best place to gaff a fish is back of the gills. Be sure that the gaff is adjusted, by small screw at joint, so that it will close at the lightest touch. It is not necessary to strike a fish with this gaff as if it were a spear; just gently touch him, and if adjusted properly the gaff will close instantly. Otherwise your line might become broken. It can, however, be used as a spear or thrown as a harpoon.

* * *

A DEPENDABLE PRODUCT.

Among the many manufacturers of fisherman's paraphernalia in America there is none whose product is more dependable than that of A. W. Bishop & Son, Racine, Wis. In addition to an extra fine line of reels, hook shields, fish scrapers, etc., this concern is turning out other sporting devices and specialties that have achieved an instantaneous and enormous adoption wherever introduced. Prominent among these are their gun and rifle cleaners which, while sold at a very moderate price, are easily in the premier rank of such appliances. The independent spooling device incorporated in the Bishop reels has been adopted by over 7,000 discriminative anglers, who are loud in their enthusiastic commendations of it. We advise all our readers to send to Bishop & Son for descriptive literature of their products, assuring them that the small time expended will be well repaid.

* * *

A VALUABLE HANDBOOK.

We are in receipt of an advance copy of the *Color Key to North American Birds*, by Frank M. Chapman and Chester A. Reed—the latter of whom is the editor of the well-known bird magazine, *American Ornithology*.

The book, which is accurate and dependable in every particular, is copiously illustrated with upward of eight hundred drawings, many of which are in color, affording a handy and quick means of absolutely identifying all of our birds. It is written in a simple and charming style and the text embodies more valuable facts concerning the feathered folk than has been incorporated in any volume published during the last decade. We unqualifiedly recommend it to our readers as the best handbook published on birds. It can be had from *American Ornithology*, Worcester, Mass., or from any newsdealer.

* * *

FINE FISHING TACKLE.

It being an axiom that the quality of a workman is best evidenced by the quality of tools he uses, the reason why the best anglers in the country use the products of the Anglers' Company of Harford, Conn., becomes at once apparent.

The fine fishing tackle made by this celebrated concern is known wherever men engage in the gentle Waltonian art. Their name and trade mark on a reel, flybook or other angling appurtanance is a guarantee that it is the best thing of the kind that its price will buy. If in need of anything pertaining to this most engaging sport, write for descriptive literature that will be gladly furnished on request, referring to this concern's advertisement on another page for address and other particulars of interest.

THE PARKER WINS AGAIN.

At Hamilton, Ontario, on January 14, the Grand Canadian Handicap was finished. This match, which is the blue ribbon event of Canada, brought out forty-three entries, each competitor shooting at twenty pigeons, from 27 to 32 yards rise. There was not a straight score made; eight men only made nineteen and all these men shot Parker guns. In the shoot-off Mr. M. M. Mayhew was first and Harry Kirkover was second.

* * *

IT IS INFALLIBLE.

In the New Year's Medal shoot at Taylor, Texas, on January 14, Captain Clif F. Gilstrap of the Taylor Gun Club made in open competition ninety-five blue rock and ten live birds in a possible score of 105, quitting without a miss. Fifteen contestants were in the match, one of whom was Frank Faurote of Dallas, who scored second. Captain Gilstrap shot "Infallible."

* * *

THE WINCHESTER'S 1903 SHOWING.

It is interesting to note that Winchester "Leader" and Winchester "Repeater" shotgun shells shared very largely in the honors at the trap in 1903. Messrs. Gilbert, Crosby, Elliott, Hirschy, Boa, Spencer, Trimble, Faurote, Hawkins, Fanning, Bigelow, Becker, Ellis, Sheard, Tanner, Burmister, McDonald, Morin, Newbert, McLaughlin, Dr. Purdy, Brown, Winters, McClure, Jackson, Vaughn and many other prominent trap shooters, who helped to make 1903 memorable in a shooting way, all used Winchester shotgun shells. The constantly increasing sales of Winchester "Leader" and Winchester "Repeater" shells show that not only the trap-shooting fraternity but disciples of the scatter gun generally throughout the United States and Canada appreciate the superiority of the time-tried Winchester brand of shells. No shells are more universally popular, and none deserve to be, for none possess more reliability. This is attested to by the enormous winnings made with them in 1900, 1901, 1902 and 1903.

* * *

A FINE CATALOGUE.

The catalogue of the Hendee Manufacturing Co. of Springfield, Mass, is full of valuable information for cyclists and sportsmen and will, we predict, meet with a large demand. Containing as it does, a vast amount of valuable information of interest not only to cycle riders but to machinists, automobilists, repairmen and allied classes it should be in the hands of every man who is concerned with rapid locomotion and the means by which it is attained. A request to the firm will bring a copy of this catalogue and the small trouble will be amply repaid.

* * *

SOLID AS A ROCK.

The annual statement for the year ending December 31, 1903, issued by the Metropolitan Life Insurance Co., is very interesting reading. From it one gathers conclusively that the financial condition of this celebrated corporation is such as to afford its policyholders a degree of assurance not excelled by any similar corporation in existence.

With present assets of $105,656.311.60 (increased to this figure from only $2,186,622.24 in the last ten years), the Metropolitan is as solid as the rock of Gibralter and its name is a synonym of all that is conservative, solvent and dependable.

The personnel of its local representatives has been no small factor in its phenomenal success on this Coast. Courteous treatment and a high regard for business ethics in general has conduced to the making of countless friends for the Metropolitan in this territory. We unqualifiedly recommend this company to all our readers, being confident that any connection made with it will be eminently satisfactory.

1904 Tonneau 1904 Light Touring Car

TWO MODELS

Haynes-Apperson Automobiles

TONNEAU, $2,550, with top and front glass, two solar No. 1 gas headlights, two Dietz Regal oil lights, tail light, horn with tube and full equipment. $2,450 without top and front glass.

LIGHT TOURING CAR, $1,450, having much the same outward appearance as our famous Runabout of 1903, but of higher power and capacity and distinctly a powerful touring car—not a Runabout—the most highly developed car of its type—the perfected product of the oldest makers of motor cars in America.

We make more nearly the entire car than any other factory in the world, and are, above all others, competent to guarantee our product. These cars show fewer mechanical changes and contain more features that years of use have proved perfect in practice than any other, and are backed by an unequal past record—seventeen contests entered—seventeen contests won, with stock cars.

Most Haynes-Apperson cars have practically been sold before they were built Get your order in early

HAYNES-APPERSON CO, KOKOMO, IND., U. S. A. The Oldest Makers of Motor Cars in America

Members of the Ass'n of Licensed Auto. Manfr's. Branch Store: 1420 Michigan Avenue, Chicago.

Eastern Representatives:

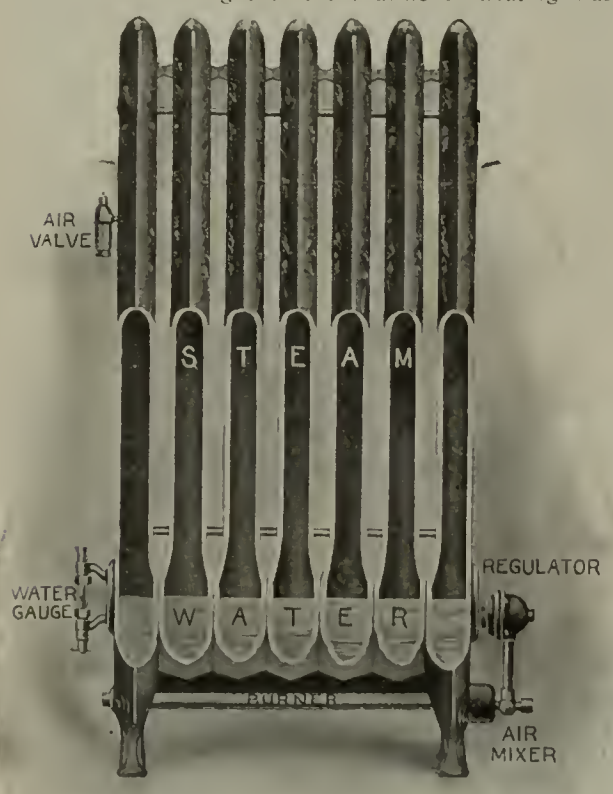
BROOKLYN AUTOMOBILE CO., 1239-41-43 Fulton St., Brooklyn, N. Y. and 66 West 43d St. New York.

NATIONAL AUTOMOBILE & MFG. CO., Pacific Coast Agents, San Francisco.

IT GIVES ENTIRE SATISFACTION.

The advance of modern inventions the last few years, particularly in the line of heating and cooking appliances, has caused considerable uneasiness to the manufacturers of the old style apparatus formerly used for this purpose. The modern gas plant has displaced to a large extent the older methods of heating and cooking; gas is more convenient and cleanly, it is there when you want it, and does not have to be stored up in large quantities. It can be purchased at a reasonable price, the poorest workman paying no more, pro rata, for the single 1,000 feet he uses than does his wealthy neighbor for the many thousand feet used during the same period.

Not satisfied with obtaining the majority of the business in the cooking line, the various gas companies have of late years extended their efforts toward heating large and small buildings of all kinds, at first in an expensive and experimental way and later in more practical forms, until with the advent of the Backus Heater it was thought that the acme of heating was



SECTIONAL VIEW.

reached. This heater was by far the best heating device placed upon the market until the arrival of the new Gasteam radiator, which can be used everywhere and at nominal expense. It uses gas for fuel and gives steam heat; with it an entire building or a single room can be heated with equal ease, or any part of the plant can be used while the rest is not in use, doing away with the expensive steam boilers, dirty fires, leaks and the many inconveniences that have heretofore attended the use of steam heat.

All gas companies throughout the United States and England sell the Gasteam radiator at very low prices. The cut herewith shows the interior arrangement of the heater. By an automatic attachment the gas is turned down as the steam pressure rises and the heat increases, and is raised again when the temperature is lowered. They have been used for years with great success in the East, and should meet with great favor on this Coast. A sample heater is on exhibition at the office of the San Francisco Gas and Electric Company, which they will be pleased to show to all visitors

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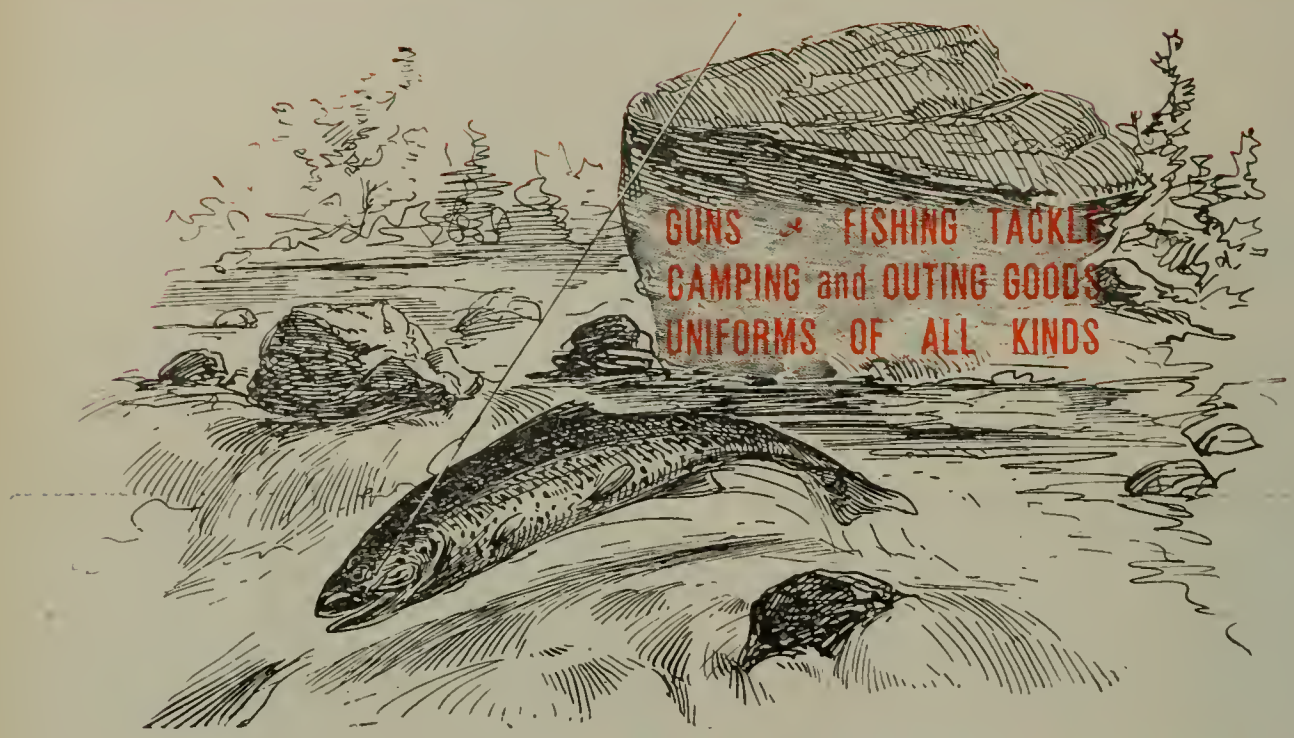

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IN ANGLERS' DREAMS.

WESTERN FIELD.

VOL. 4 APRIL, 1904. NO. 3.

A DAY ON THE YUBA.

By WALTON JR.

ONE day near the close of June a friend and I agreed that it was time to shake off the cares and worry of business for a day at least and renew our acquaintance with our finny friends. Accordingly we loaded our fishing tackle on a cart and started out at four o'clock for a camp on the South Fork.

Leaving the beautiful mountain town of Graniteville, high in the Sierras, we began ascending the grade on the old Henness Pass road, where once two rival stage lines vied with each other to make the speediest time from Sacramento to Virginia City. Seven miles out we came to Bowman Dam, one of the large artificial reservoirs formerly used by the hydraulic miners for the storage of water, but now owned by the California Water and Power Company, of which Mr. W. B. Bourn is president. It teems with cut-throat trout, and a permit to fish here is graciously accorded to any one upon application to the company's resident agent. But we were after brook trout this time, so after skirting the shores of Bowman for a short distance we abruptly turned to the left and climbed to the top of a high ridge. After crossing the summit we passed two small lakes, McMurray Lake and Weaver Lake, both of which contain cut-throat trout of large size. We quickly hurried along the steep road, with only a glance at these beautiful bodies of water as the shades of night were falling fast, and we had quite a distance still to go.

Arriving at our destination about dusk we stabled our horse in a deserted barn, formerly used by sheepherders, and took possession of their cabin. Rising at three next morning we got a hasty breakfast and gave our Bucephalus a plentiful supply of hay and water, for here we would have to leave him until our return and trust to our own limbs.

We started on the trail with the long swinging steps characteristic of all persons used to mountain climbing, and were rapidly covering the four miles which had to be traversed before we would arrive at the point we had selected for our sport, when a loud splash instinctively made us halt. We were just turning a point on the trail on the further side of which a streamlet brawled noisily down the ravine. A fat buck jumped up, and, not yet sighting his disturbers, made a couple of leaps directly towards us. Then, when within thirty feet of us, shaking his velvet-covered, four-pronged antlers, he turned and ran about forty yards, stopped and faced us, evident so badly "rattled" by the sudden scare that he hardly knew what had frightened him. Finally he moved off, pausing occasionally to look back at us. It was one of the few times I had jumped a deer before he saw me. My friend and I were amply repaid for our early rising by the sight, which we were in a position to enjoy better as, being close season, we had no guns. There is a pleasure in beholding a noble buck apart from the lust for killing.

We were bound for an almost inaccessible part of the Middle Yuba. In the spring the headwaters of this river anwhere affords grand sport so far as numbers go, catches of seven or eight dozen being common. Near Jackson Crossing, on the old stage road,

BOWMAN DAM.

it is easy of access from Weber Lake and is much frequented by anglers from there, though they persist in calling this stream "Jackson Creek." The real Jackson Creek is the outlet of Jackson Lake, three miles from there, and contains no trout. The parts near roads or trails have been so industriously fished that the trout are comparatively small; we were after big fish.

We arrived at the river before the rays of the sun had found their way down the narrow mountain gorge. Quickly proceeding to rig up our tackle, we began casting.

MCMURRAY LAKE.

Our efforts for the first hour did not meet with success. However, we were not discouraged, as my experience has been that the fish in this river, contrary to rules, do not rise freely to the fly until after the sun strikes the water. Finally I felt a tentative pull on my line. With a quick turn of the wrist I hooked the first one. Hardly had I landed my prize when C—— made it a pair. Then the fun grew fast and furious until eleven o'clock, when the fish let up biting for a while through the middle of the day. At noon we had about forty apiece. We were no hogs, but knew that numerous friends expected a share of our catch, and none would go to waste; also that this would probably be the only time that season this part of the stream would be fished by us or any one else. The walls are so steep

A SIERRA PINNACLE.

that it is impossible to travel up or down the river when the water is high, and when it once commences to recede in two or three weeks it is so low that the fish seek the deep holes and no amount of persuasion can induce a rise. Under all circumstances we concluded to make the most of our opportunity.

Carefully cleaning our fish so that our loads would not be any heavier than necessary, we resumed our sport. Our luck was indifferent until about three o'clock, when the trout again began biting. I had the misfortune to slip on a rock and break my rod. While I was endeavoring to splice it C—— had worked down stream where a miniature Niagara fell to the pool below.

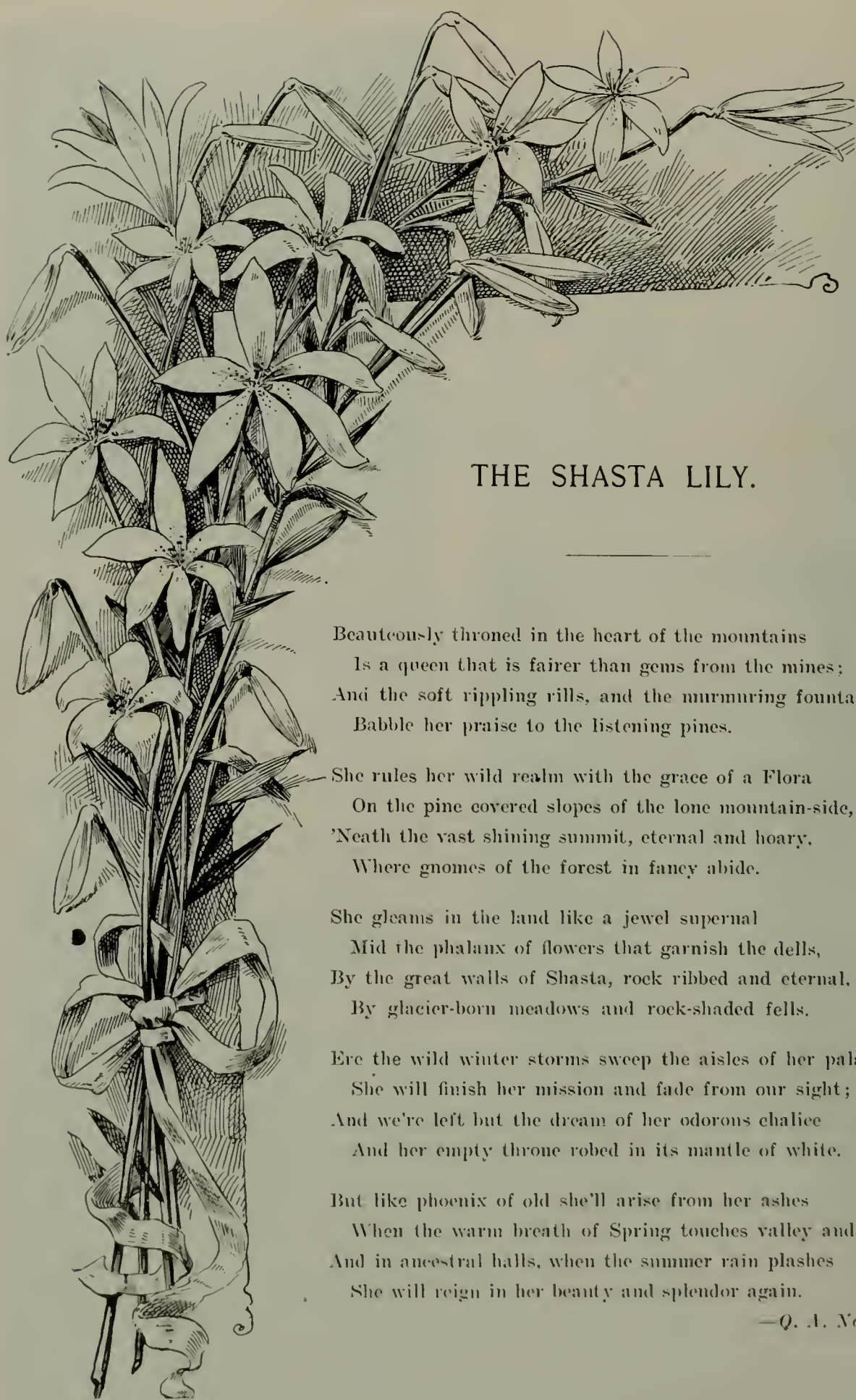
Hearing a jubilant shout, I reached him just in time to see him land two beauties. Then came sport royal. Every cast was rewarded by a splash and streak of silver. We both landed doubles several times, and once I caught one on each of my three flies. In a remarkably short time we took over two dozen fine trout out of the pool. It was now time to start back if we were to get home before dark.

Instead of returning the way we came, we concluded to try a "short cut" across the hills. To our sorrow, we proved the truth of the old adage, "the longest way around is the shortest way home." After climbing up perpendicular cliffs for nearly a thousand feet, we struck into a thicket of manzanita and chaparral. C—— nearly trod on a huge rattlesnake, which, despite our efforts, escaped in the thicket. After hours of alternate climbing over and crawling under the chaparral, we finally emerged in a grassy vale about a half mile from the shed where we had left our horse. C—— said if he had much farther to go he would be compelled to throw away part of his load. It was now quite dark, but we quickly covered the remaining distance and were soon on the main road. Late that night we arrived home with 163 speckled beauties. By the time we had divided these among our friends we had barely enough left for a good breakfast. Nothwithstanding our fatigue, the memory of that day stands out clearly above all fishing trips. Never had it been my fortune to encounter more magnificent sport.

JACKSON FALLS.

Geo. Gignac, Photo

A SIERRA MEMORY.



THE SHASTA LILY.

Beauteously throned in the heart of the mountains
  Is a queen that is fairer than gems from the mines;
And the soft rippling rills, and the murmuring fountains
  Babble her praise to the listening pines.

She rules her wild realm with the grace of a Flora
  On the pine covered slopes of the lone mountain-side,
'Neath the vast shining summit, eternal and hoary,
  Where gnomes of the forest in fancy abide.

She gleams in the land like a jewel supernal
  Mid the phalanx of flowers that garnish the dells,
By the great walls of Shasta, rock ribbed and eternal,
  By glacier-born meadows and rock-shaded fells.

Ere the wild winter storms sweep the aisles of her palace
  She will finish her mission and fade from our sight;
And we're left but the dream of her odorous chalice
  And her empty throne robed in its mantle of white.

But like phoenix of old she'll arise from her ashes
  When the warm breath of Spring touches valley and plain;
And in ancestral halls, when the summer rain plashes
  She will reign in her beauty and splendor again.

—*Q. A. Nosler.*

PIONEER DAYS IN THE BIG HORN RANGE.

By Charles F. Blackburn, E. M.

IT WAS during the summer and autumn of 1877 the writer was prospecting in the famous Big Horn Range, of which Cloud Peak stands sentinel. In June, '76, the Custer massacre occurred down on the east bank of the Little Big Horn. The howl of the wolf, yell of the red man and scream of the mountain lion was the harsh "music" we often heard in that vast wilderness. Danger seemed everywhere—the woods, cañons and hills were full of bear; bruin was at home. contented and fat. Packs of huge timber wolves chased the elk, bison and deer. As many as twenty large wolves were once counted in an attack on a buffalo bull on the head of Tongue River. The bull was quickly killed and devoured by these ferocious beasts.

Between Cloud Peak and the Big Horn Cañon—along the summit of the range—there lies an ideal paradise for the sportsman; lofty ridges and great walls of rock fence in beautiful parks, half wooded and grass covered, over which herds of elk, bison, deer and mountain sheep were ever in sight. Brooks of pure snow water flowed through these horseshoe basins and drained on through a roaring mountain torrent as it went leaping and dashing down the deep rugged cañons to the plains. In those days the game was not wild. The writer has taken a handful of salt and thrown it on a slab of granite within a few rods of camp and noticed a dozen or more deer quit eating the grass near by and deliberately walk up and lick the salt. I have done the same with buffalo and elk.

On one occasion a storm had driven a herd of over a thousand buffalo under a high bluff from which great blocks of rock had fallen and covered the ground. The writer was soon among the herd and, stepping from rock to rock, would reach down and kick the larger bulls on the back as they stood crowded among and around the rocks. The roar of the storm against the mountains displeased them much more than did having a stranger "pat 'em on the back," at least they would only step aside and look up at us with a fearless manner as if to say: "You are not very dangerous looking even though you wear a belt full of cartridges and have a Winchester!" And they were right—as we had plenty of mountain sheep in camp and that beat buffalo steak even though the latter were cut from the much over-estimated "hump!"

In nearly all the streams and spring brooks there were peaceful families of beaver; these animals fed on willow and cottonwood bark and made dams and houses of the wood. Once the writer took a pick and cut a drain so as to let out the water from a beaver-made lake in which they had built a home. Soon as the water had fallen about two feet a number of beaver appeared and quickly repaired the broken dam. These fur-bearing animals are natural mechanics and can do quick and effective work.

Along the limestone walls of the cañons there are many caves and holes in which wild cats, lynx and mountain lions lived in all their glory. They could be seen often walking along the shelf-like rock bluffs and lying in the sunshine. In the vicinity of the Big Horn Cañon there were thousands of Rocky Mountain sheep—of a verity "big horns"—and here could be seen the finest specimens in America. Old rams that had weathered twenty years of wintry storms could be found and such a growth of horns made them appear fit companions for some of the mammoth bull elk, of which there were literally thousands in that region. Of bear there were four kinds, black, grizzly, silver tip and cinnamon, the latter being a large brown bear. I have shot as many as six bears in a day in the Big Horn Mountains and could have shot a dozen by hunting them. As it was, we got forty-four bear and saw hundreds of others—some of which we had not lost.

Through the range were broad game trails—often 100 feet wide—over which roamed the herds of buffalo and elk. As soon as a buffalo was shot there would be heard the squawk of the ravens; these carniverous

birds would call their mates on scenting blood and a few hundred of them could soon eat up a bison or elk.

Around Cloud Peak, which exceeds 13,000 feet in altitude, may be observed some of the most rugged scenery in America. To the east can be seen the Blacks Hills of Dakota, 200 miles away, while to the westward the great "Continental Divide" loomed up in all the panoramic grandeur from Northern Colorado to the British line—a continuous range of rugged mountain peaks 600 miles long, all visible from the top of Cloud Peak. Several living glaciers exist a few hundred feet below the summit of old Cloud Peak; also some beautiful Alpine lakes, but neither the glaciers nor lakes are so large and numerous as may be seen across the Big Horn Basin in the Wind River range and the Snowy Range of mountains. There are enough cascades and water falls in all this region to make a weird, musical roar all the time, reminding one that nature's mills are never idle, but constantly grinding down the solid rocks and high mountains.

The geology of the Big Horn Range is chiefly granite in the interior, flanked with primordial quartzite, silurian, Devonian and carboniferous limestone, these sedimentary strata measuring in the aggregate many thousands of feet in thickness. Most of the limestone is highly fossiliferous, showing remains of past marine life. The range is fairly covered with evergreen forests and is blessed with a most salubrious climate during summer time, but during the winter it becomes intensely cold. During January the thermometer sometimes registers sixty degrees below zero on the top of Cloud Peak; while over on the summit of Fremont Peak in the Wind River Range, a temperature as low as seventy-five degrees below has been reported.

Geo. Gignac, Photo. "IN ALL ITS PANORAMIC GRANDEUR."

The glacial system of the latter range is the most extensive in the United States, the writer having seen them all. For the most strikingly precipitous mountain range in the country I would refer to the Teton Mountains, just south of the Yellowstone National Park. The eastern slope of the Grand Teton, or Mount Hayden and Mount Moran, as viewed from the head of Big Wind River, is indeed a sight never to be forgotten.

TROUTING ON THE WEST FORK.

By C. D. Griffiths.

FOUR of us, Smith, Thaxter, Wallace and the writer, left Azusa one Saturday evening for the Rincon, a beautiful camping resort on the "West Fork" of the San Gabriel River, about fifteen miles from Azusa.

We all had first-class mounts except Wallace, who was riding a white mule of uncertain age but of whose "post hole driving" proclivities there was no uncertainty whatever. I can not now recall a brute of more unlovely gait. It was Wallace's first experience and he surely led a strenuous life

"WE BEGAN TO WHIP THE STREAM."

FISH CANON FALLS.

for the next two hours, over as rough a river road as was ever traveled by a California stage.

We arrived at the Rincon store about 7:30 and climbed down to straighten out the kinks. As we started for the corral, about a hundred yards down the hill, Smith said "You don't catch me walking when I can ride," and started up "In the Good Old Summer Time" as he struck the saddle. This was too much for the mule; with his head and tail between his legs he made four or five stiff jumps, and the next we saw of Smith he was going through the air much like a big frog goes for a pond of water. But he fortunately lit on his hands and knees without a scratch, and then came a "roundup" in the semi-darkness of the mule, who evinced a decided inclination to take the back track to oats and meditation.

Next morning we rolled out at two o'clock and after a hasty breakfast donned our old shoes. By the way; shoes are the "only thing" in trout fishing, for there never was a pair of gum boots long enough to keep you dry when a big fish is about to get away. Striking out for "Bear Cañon," about two miles above the Rincon, we soon lost the trail and after consuming all our matches were compelled to take the creek bed for it.

We reached the "Pasadena Bait Club's" log cabin, five miles from our starting point, at daylight. Here had been enacted during the Winter months a tragedy. Three of Mr. Potter's "burros" had entered the cabin, either to escape the stress of storms or from curiosity, and in some way had closed the door; they had eaten everything possible, almost liberating themselves by gnawing at the shutters on the windows but had slowly starved to death.

We passed on in silence, all imbued with sadness at the cruel fate that had overtaken those faithful little friends who had, no doubt, carried many a weary fisherman past their self-made grave in the years gone by.

Almost a mile above the cabin we unlimbered and began to whip the stream. The gamey little fellows soon got busy and everybody was catching trout. Smith and I took a dozen of eight to ten-inch fish from a pool not more than six feet across and the others had like success.

Did you ever strike a place where you knew there was a big fellow laying just out of reach? I found just such a one—an eddy about the size of a wash-tub under an overhanging rock. I tried several times to make the cast from the opposite bank but would either strike the rock or fall short and the current would carry the fly out of reach; at last the cast went true and it no sooner struck the water than the fight was on. With a yell to the other boys that I "was fast to a three-pounder," I began to do business, trying to get him out of the foaming water under the falls, where he had gone at the first dash.

At last he started down stream and as he struck smooth water the pole straightened out—and I felt like thirty cents! He was a short nine-incher that wouldn't weigh a quarter of a pound.

We fished up stream until noon and after an hour for lunch and rest started home. We had evidently done some pretty thorough work coming up, for there wasn't much doing on the return trip. Camp was reached about five o'clock with two hundred and fifty trout in our creels and an appetite in our bosoms that would be worth $100,000 to a millionaire dyspeptic.

We saddled up and made the ride home in less than two hours. Just before we reached the "Old Kelsy Mine" we cut loose from Thaxter, who was fifty yards ahead, and tried for a short cut. But he let out a kink or two and came in ahead at the next bend; as he flashed by on the other side, the old white mule gave one startled bray and lit out down the river bed to the next crossing, regardless of boulders, bedrock and driftwood. Wallace was hanging on with both hands, the spray flying all over him. We expected every minute to see them piled up in the river but old "Whitey" kept her feet and came out ahead of the bunch. We reached home after eighteen hours of steady riding and tramping, the four weariest Willies that ever carried a creel, but satisfied beyond words of expression with our glorious day on the "West Fork."

WHERE THE BIG FELLOWS STAY.

AN OREGON OUTING.

By Harold Tallant.

OUR PARTY of five left Santa Barbara en route to Oregon on September 13, 1903. The saying that thirteen is an unlucky number came very near being proved on our trip. We arrived in San Francisco on Monday afternoon and our troubles immediately began. We were to sail on a little steam lumber schooner, the "Del Norte." It was supposed to leave on Wednesday afternoon, but owing to some delays it did not get away until 7 P. M. Friday, popularly regarded as an especially unlucky day. The Del Norte runs between San Francisco and Crescent City, Cal. We were due to arrive at the former place about midnight, Saturday, but fog and headwinds delayed us about twelve hours, so we got in about noon, Sunday. We were met by Mr. Will C., who was to accompany us on our trip. We had dinner in Crescent City and that afternoon drove to Mr. C.'s house, about thirty-five miles from Crescent City, in Chetco, Oregon. We stayed at his house that night, and about noon, Monday, left on our way to camp.

We stopped at a roadhouse Monday night, and Tuesday morning left on horseback. About three in the afternoon we stopped at a house to inquire about a good camping place, losing some time here, but finally got started all right. It got dark very soon, and finding a small spring we camped near it. It was too dark to see anything, so we didn't know where we were, but by digging several holes we got a little water for our coffee. It was a hard place to make a camp, but somehow we fixed our beds and turned in. The horses, trying to get water, kept us awake about half the night. When morning came some of the party went to get the horses, and about two hundred yards from where we camped they found a fine spring and lots of good horse feed. We were very much disgusted that we had not gone on a little farther. There was some trouble in finding the horses, and we didn't get away until nearly noon. If we could have gotten an early start we could have made Mr. John C.'s ranch that night, but we had to camp about seven miles short of there and so did

A ROGUE RIVER VISTA.

STARTING ON OUR LAST DAY'S RIDE.

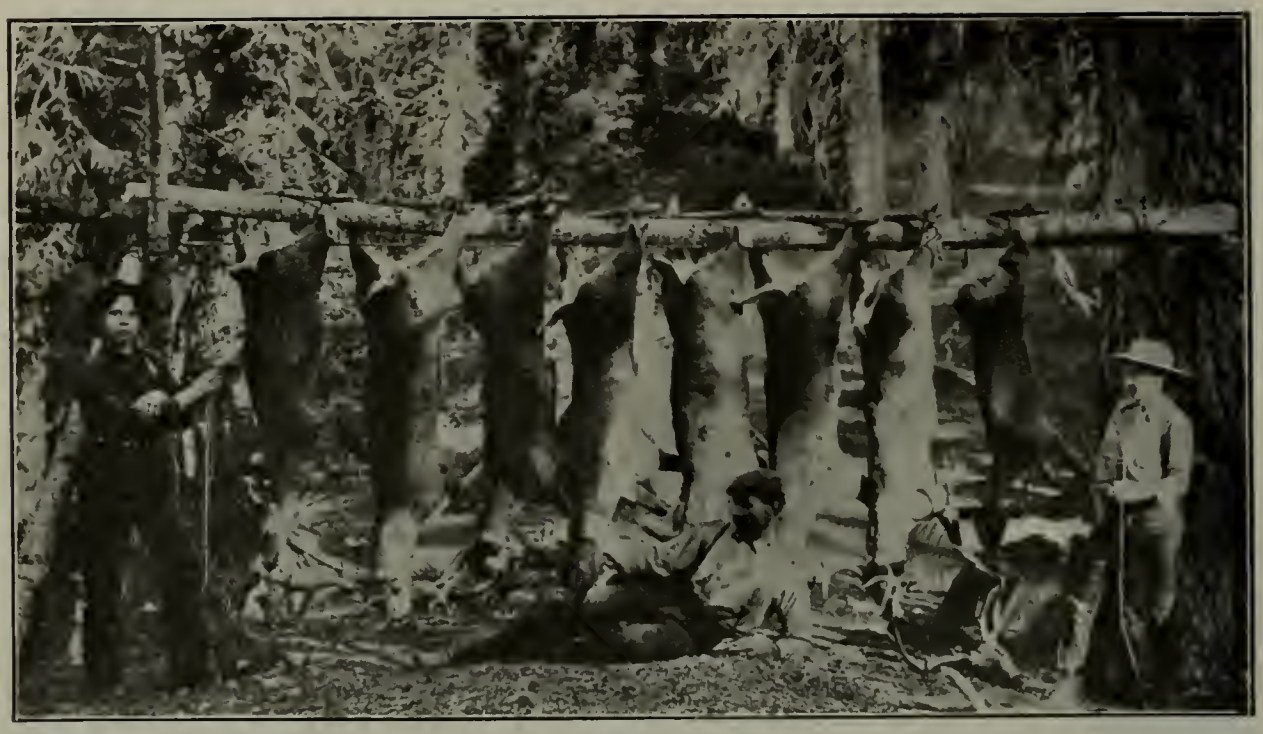
not arrive at his house until noon the next day.

We left C.'s house the next day for our last day's ride. As Mr. Will C.'s brother and son and Mr. John C. and two relatives had joined our party, we now numbered eleven. About a mile from where we were to camp, two of the party went ahead to prospect for camp meat and were lucky enough to get two nice bucks. Although we went originally for bear we didn't have much luck with bruin, getting only one. But we got plenty of deer to make up for it. We made camp Friday afternoon and by Saturday night had fifteen deer all told, eight of which I was partly responsible for. After we got in camp two others of the party had gone out shooting and killed two more deer. Saturday morning Mr. Will C., his son and myself went out to see if we could add to the score.

As I had never seen a deer wild in the hills, and had never shot a gun larger than a .22 caliber, I did not expect to do much. We had gone about a mile when Mr. C. saw several deer about a quarter of a mile away. We sneaked on them and when quite close opened up a great fusillade. We boys were a little excited, of course, and when we got through shooting we were both minus fifteen cartridges. We were well repaid, however, for out of a bunch of nine deer we killed eight, and let the ninth go unharmed purposely. When we got back to camp somebody asked if we were "celebrating the Fourth of July." We replied that two old does were running away and we were shooting at them for practice.

One thing which we had a lot of fun out of was a cake which Mrs. C. had baked on the condition that it was not to be eaten until a bear was killed. On Sunday night we were all sitting around the fire when some one said "cake." The man that killed the bear said that he didn't believe there was any cake. He had killed the bear that afternoon but hadn't said anything about it. He went over and began looking through the provisions until he found it. He took a knife and put it right into the cake and brought it over to where we were. Everybody was wondering what to do when somebody said, "You will get a very cold reception when you get back to Chetco." He then thought it was time to produce proof that he had killed a bear, on which everybody yelled as loud as possible and grabbed a piece of cake. It tasted awfully good after our rough camp grub.

The air up there is very light and pure, and was also very cold. One day it rained and the next day the drops on the brush



"PRETTY GOOD FOR TWO KIDS."

froze into little balls. The country is covered with very heavy timber, and here and there, when on the top of a ridge, could be seen small fires burning. We camped in a small gulch and we got so little sun that we had to build fires under the "jerky" to keep it from spoiling.

THE ROGUE RIVER.

After spending five very pleasant days in camp we left on our return trip. We only killed five more deer, making twenty in all. We stayed a day and a half at Mr. John C.'s house. Instead of going overland as we had come, we decided to go down what is known as the Rogue River. It is a magnificent stream, full of trout and salmon. In one night's fishing we caught eleven big salmon. The boats used on the rivers are rowboats with high bows. They use sails a great deal.

Sending three men of the crowd down with the horses, the rest went in one boat. The scenery was grand, large cliffs rising on both sides of the river. In some places the river is thirty or forty feet deep and very wide. The stream makes many turns and there are a great many small rapids. It was very exciting sport "shooting" them. We left about nine o'clock in the morning, and stopping about half an hour at noon, rowed steadily until about four o'clock. The last few miles were very disagreeable. It was raining hard and a strong head wind was blowing. We were not prepared for rain at all; so we stayed all night in a hotel at Gold Beach, at the mouth of the river. It rained all night but stopped for a while in the morning.

Leaving Gold Beach about 8:30 A. M. we rode until eight o'clock that night, nearly all the way in the rain. We covered about forty miles and were very glad to get back to Chetco. We stayed at Chetco the next day and night, and left on Tuesday morning for Crescent City. When we got there we found that the Del Norte was a day late on account of rough weather. We got away from Crescent City about five o'clock Wednesday afternoon, reaching San Francisco Friday morning. We got back to Santa Barbara Monday morning after one of the most pleasant trips I ever made.

[The author of the above exceedingly well-written sketch—which by the way is authentic and dependable in all its details—is the son of Mr. E. C. Tallant of Santa Barbara, Cal. Master Tallant, who is a lad of about fourteen, is one of our most active auxiliaries in Southern California and has done very effective service in our subscription department. Of the deer secured on this trip Harold bagged three, including the beautiful freak head pictured above. He is a peculiarly bright and promising youth and judging from his debut in big game hunting, promises to be ere long a shining member of the great sportsman's guild. —EDITOR.]

AN OREGON FREAK—KILLED BY HAROLD TALLANT.

"LI'L MISS DONE GONE TO SLEEP."

OLE miss' die when li'l miss jes' turned three;
Mammy raise li'l miss up side o' me.
Li'l miss' hair yaller, mine black, kinked tight;
Li'l miss say, "You li'l soul jes' as white."
Li'l miss' eyes wery big an' sof' an' blue;
She say, "Black eyes covah heart as true."

When de ebenin' shadders eb'ry-where,
Li'l miss come stealin' to mam's ole chair,
Jes' in front ob de big fi-ah place,
Where shadders on de wall run a race.
Den my mammy push me off her lap,
An' she take li'l miss up fuh huh nap.

Li'l miss curl down, an' mam croon an' croon,
A song 'bout de fairies an' de moon;
Take li'l miss' ba'ah feet in one han' wahm;
"Honey, mammy keep you frum all hahm."
I scrooch down on de flo' at mam's feet,
An' watch dem blue eyes, so sof' an' sweet,
Look in de fi-ah, as do' she—tinkin'.
Bime-by dey fluttah, den stop blinkin';
De dark behin' mam's chair go creep, creep,
Mam say, "Sh—li'l miss done gone to sleep."

One day de house it wuz bery still,
An' mammy say li'l miss wuz ill.
Den way in de night, half past 'leben,
Mam tell me, "Li'l miss g'wine to heaben."
Ketch me up an' hurry tro' de do',
So I kin see li'l miss once mo'.

An' when she reach li'l miss' li'l white bed
She hol' huh bref, an' lean down huh head;
Den de tears down mam's face go creep, creep,
An' she say, "Li'l miss done gone to sleep."

—*Katherine March Chase.*

THE FISHER'S WIFE.

HOW wistful and white she stands in the light
Of the drift fire, blazing high;
With a sparkling trace of her inward fight
On the lash of her bonny eye.

For she dreads the sea that her man must brave,
And shudders to see him go;
(For her father sleeps 'neath the restless wave
A hundred fathoms below.)

But his boat must out in the fresh'ning breeze,
To battle for daily bread
With the white curled seas, when the trawl lines freeze
And the grey sky scowls o'erhead.

And he bravely laughs in the face of Fate
When, all unmasked, the gale
Screams o'er his bows with malignant hate
And tears at the sodden sail.

For, 'tis part of a fisher's life to dare—
It is part of his wife's to weep.
And the Shadow ever abideth there
On the rim of the cruel deep.

* * * * * *

Oh, wistful and white in the dawn's grey light
Doth the fisher's wife yet kneel;
But in ghoulish glee the breakers white
Are lashing an upturned keel.

—*F. M. Kelly.*

AMONG THE RIM-ROCKS.

By Rev. George H. Bennett.

"TWENTY-SEVEN miles to the Poe Ranch," was the remark which smote upon the ears of Billy as the saddle was thrown on him, and rifle and sacks were snugly fastened for our flight to the Cascades.

The morning was bright and cool after the shower. Blackbirds were busy getting breakfast in the plowed fields, and the meadow larks were singing a charming medley in the stubble. Our road wound up a narrow valley, with fields of brightening grass, beyond which rose steep domes, covered with oak and laurel, and bedecked with autumn tints. As the hours wore on the valley became more winding and narrow, the hills rose higher and ledges of rock crowned the summits. 'Ere long heavy forests of fir and pine clothed the near-by slopes with somber green, while the loftier far-off mountain ridges were dim and blue in the distance. For miles the mountain road followed the tortuous course of a rushing, now roaring and anon silent stream. How impressive are the moods of a mountain torrent—now impetuous, now musical, now dreamy!

But Billy paced and loped and trotted over hill and dale, past shining serpentine walls and over rock-strewn roads. We glided past a lonely ranch, whose owner was murdered and his body burned to conceal the crime years ago. Sad commentary on human wickedness! We hastened on through silent and shadowy forest, and beneath frowning cliffs and sculptored rocks, which towered, mute sentinels of the wilderness, in their majesty.

When at last I rode into the clearing I was sure I had grown fast to the saddle. But when I rode through the open gate and painfully dismounted after a seven hours' ride, I remembered I had not been in a saddle for nearly ten years. But the hearty welcome given me by mine hosts, and the steaming and savory supper quickly prepared by the good housewife, soon banished all thought of pain and weariness.

The sun was painting the mountain tops

THE RIM ROCKS.

in the glowing tints of morning when we set out for a day among the "rim-rocks." After a mile along a well-beaten trail up the creek, through open timber and around bushy points, we reached an open field at the foot of Chivanie. This mountain is simply a long ridge, which rises abruptly hundreds of feet above the creek and unites with a higher ridge a mile or more to the west. Here we separated. Lewis Poe, the tall mountaineer and guide of the Umpqua country, with two frolicsome pups in training for "varmints", went aloft, while Russell and myself made our way up the cañon.

We crept through patches of wet fir shrubs, and then into thickets of vine-maple, where the dead leaves were flecked with glints of sunshine. It was uphill work. We disturbed several ruffled grouse, which were industriously scratching in the soft, damp earth. We rested on a log where a big wildcat and three kittens, nearly full grown, had a day or two before nearly scared the wits out of Lewis' pups. Our way took us into open glades, up stony steeps red with poison oak, and at last, wet with perspiration, we stood on a mass of broken rock which overlooked the mountain side and the distant slopes. Several ledges of rock cropped out of the mountain side; they were broken in many places by deep gullies, but extended the whole length of the mountain. These rim-rocks are favorite places for the festive

"COVERED WITH GLORY."

buck. He delights in this high vantage ground, where he can harden his horns in the sunshine and securely doze with one eye open.

Lewis appeared on a rim-rock far above us. He was in trouble. The pups had struck the red-hot track of a chipmunk, and with many a yip-p and ki-yi-i had run off and got lost. Lewis trembled for those pups—he was sure the "varmints" would get them if left over night. So we quit deer hunting and hunted pups. The whistling and shouting and roll of musketry which followed seemed much like the glorious Fourth. But the pups came back.

We then started for the top of the mountain, scrambling up the steep and bushy ground in single file, with the dejected pups in the rear. As we rounded the top of a rim-rock a small but lusty buck which had been hiding there during all the recent barnstorming sprang from a clump of bushes within fifty feet of us and flashed out of sight in an instant. The .45 roared its salute, the .30 popped and the big six-shooter belched forth fire, but it only gave wings to his meteoric flight. As he dodged in and out with tremendous speed in his down-hill road to seeming destruction, the remark of the old darkey came to mind: "He runs so turrible—jes let 'im go, an' he'll kill hisself."

When we reached tne top of the ridge we separated and I made my way up the hogback. The mountain was here covered with open timber, while here and there clumps of maple and laurel dotted the glades. Signs of deer were on all sides. I slowly and cautiously climbed a steep and ragged mass of rock which crowned the intersection of Chivanie with the range. Just then the wind whipped round and blew across the rim-rock. "It is all off with me now," thought I; but I saw or heard no sign of the elusive deer.

But how magnificent was the prospect before me! Ridges and domes and peaks, all densely mantled with forests of fir and pine and cedar, rose one above another and stretched away to the shimmering horizon, while far below me wound the gleaming river. I found here a pile of broken rock which had been laid up by human hands—a mute witness of a vanishing race. Such landmarks are found on most of the high mountains in the Cascades, but their meaning is a mystery locked in the forgotten lore of the Indian.

As I passed around the rim-rock and down into the shady grove, I found fresh tracks of a running deer. The rascal scenting me when the wind changed had quietly slipped out of his bed, and when out of hearing had "cut for tall timber." I went round the rock to look into the chasm below and heard the rattle of gravel and rolling stones. Then all was still. I crept around a point of rock,

KILLED ON THE RIM ROCKS.

but the old fellow was in a hurry and bounded away before I got a glimpse of him. Two lordly bucks had been dozing there—but with both eyes open.

Then a shot rang out away down the mountain side. I made my way across a broad basin covered with rank grass and fern, and with narrow lines of fir and alder marking the little water courses. Soon I heard the huntsman's whistle, and after a time saw him standing on a big log, six hundred yards away, waving his hat. I hurried to him. Russell and the pups were mystified. He had seen a deer skulking across an open place away up on the mountain side. A shot from a .30 threw up a cloud of dust, and the deer literally vanished from sight. He knew he missed his mark; but what had become of that deer was a conundrum. So we sat down and ate our lunch, and decided to go up there and investigate. After a short rest, we started down to cross a deep gulch, when all at once Russell gasped, "There goes that deer!" He sent a shot after him, three hundred yards away, but the deer bounded on. Taking hasty aim, I sent a .45-90 smokeless high velocity bullet in search of him. It found him, for no sooner had the gun cracked than the deer literally stood on his head and fell to one side. We could see the sky between his hind feet. "You've got 'im!" shouted Russell, with tears of joy in his voice.

It was a long hard climb, but we clambered over logs and through tangles and up a slide of jagged stones, and found the spot where the deer started. He had simply laid down, at Russell's first shot, where he could see and not be seen. We did not find a hair or drop of blood, but picked up a twig cut by a bullet. But soon we found ground broken by short leaps of the deer, and thirty

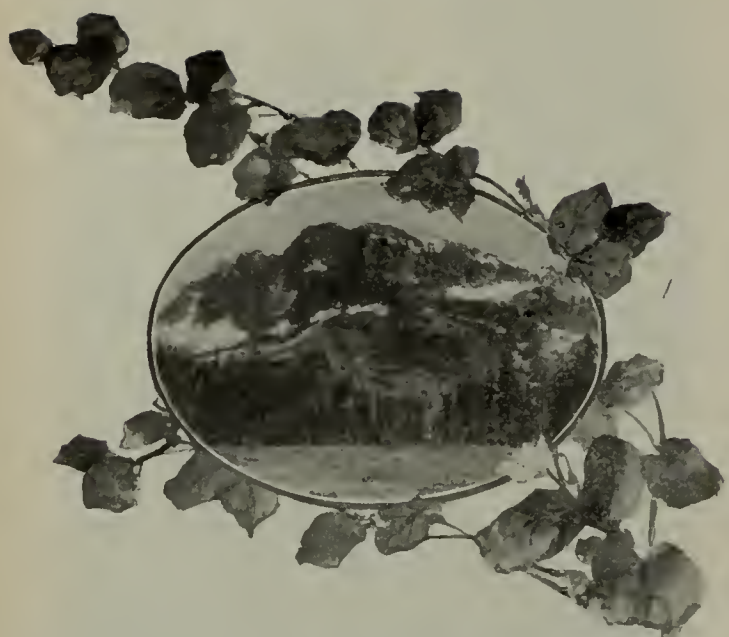
A PLUMP THREE-POINTER.

yards down the slope we found him. A stout bush had caught him—a plump three-pointer in a natty coat of blue. We received congratulations. The pups frisked, then bristled, and finally fought like demons. Mrs. Poe heard the celebration more than a mile away down in the valley, and knew something had happened. The soft point bullet had entered the deer close to the tail, passed through the heart and lodged in the sticking place.

But now our troubles began. We stumbled and staggered and fell along that weary journey under the weight of our trophy to the cabin—and though covered with perspiration and with ticks, we felt we were also covered with glory.

Roseburg, Oregon.

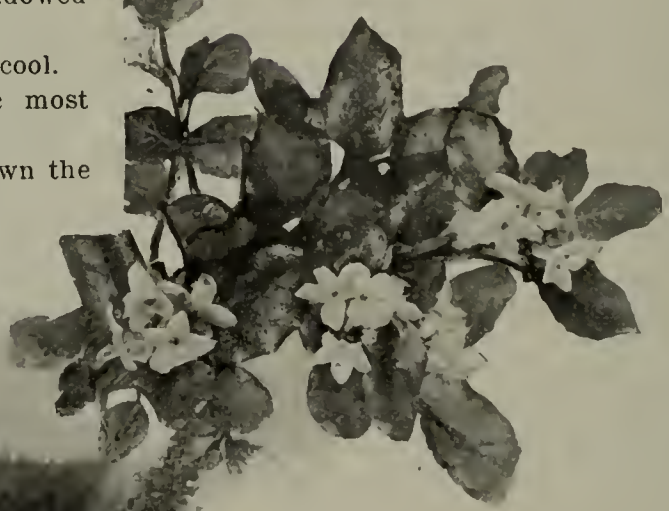
ONE THING I MISS.



FLOODS of golden sunlight all the valleys fill;
Troops of early blossoms riot on each hill;
Blue the mountains beckon, swift the rivers flow,
Meadow larks are trilling from each green hedgerow.
Pure the air we're breathing—rich and strong as wine.
California's spring time is passing down the line.

"Love it?" Passionately! Can you ask? But then,
Spite of all this glory, turns my heart again
Back to youth's fair promise, to a wood I knew
Where the coy arbutus, fragrant, shyly grew;
California's radiance is a dream of bliss,
But the sweet wood blossom is one thing I miss.

Clear the water's ringing in the cañons deep,
Low the boughs are swinging where the harebells sleep;
Lace-like ferns are peeping in the shadowed pool
Where the trout is dreaming in siesta cool.
Home the west wind hastens—tonic most divine!
California's spring time is passing down the line.



Life is broad and virile in this big, free West
Rife with glorious plenty—land I love the best!
But, as thoughts of manhood to youth's sweetheart turns;
As the world-worn traveler for his home-land yearns;
As in crowds we hunger for a face we know—
So I long for "Mayflowers" peeping through the snow.

—*L. Clare Davis.*

THE STICKEEN RIVER COUNTRY

By C. F. MULLINS.

PART III.

(Concluded)

LARRY said I ought to get out earlier for moose, and promised to be ready at four. He was not, however, and although I was ready at 4:20 we did not get away until after five. Too much time lost in getting his breakfast. A strong wind was against us and we had no chance for stalking until some miles away, where the moose, by the time we could arrive, would be lying down in the thick willows or small timber. There was no chance of doing anything and Larry seemed to be continually changing his mind, going up and down the wind and circling; we were both pretty cold and my temper was not of the best after pulling myself and dragging the horse behind me for three hours in deep mud, so I kept behind. About nine we jumped a caribou that was lying down about 200 yards away to leeward. We dropped, and I drew a bead on his chest, but as he stood watching I waited, and he advanced toward me, still offering the same shot and stood again. He repeated this three times, and as I knew I could kill if he moved, I waited to see what he would do and where his curiosity would lead him. I knew at the first smell he got of me he would run, but whether he turned right or left I was bound to get him, for there was no obstruction in sight or any to be reached in less than half a mile. When about sixty yards away he started for a run, but at first shot I dropped him almost where he stood. It was so easy that it was like stealing candy from a baby. We cleaned him and left him so that the air would circulate and keep the meat good until we wanted to bring it in.

We went down wind again, and at last I asked Larry if he knew where he was going and what he was up to anyway. We had been traveling about five hours for moose country, and none in sight. I asked why not go back and hunt where Hamilton had killed the day before, but he said "no" he was not going where Dennis had been, and I began to suspect I was up against some difference between the men, and thought of what Calbreath said at Telegraph about hunting grounds. Larry said (as we were nearing a ridge) "we will be on moose ground soon," but on getting there found we had still further to go. At 11:30 we lunched; after some hot tea had warmed us both up I began to see the comical side of it, and drawing Larry out found he had never been in this part of the country before, but we were lunching on Flat Creek, the place he had been looking for. He had asked Dennis how to get there and also for other information about best ground for moose, but could get nothing out of him, so I sized it that he was going to show Dennis he could hunt in a strange country and get the game he was after without help; but it was not funny for me, and as I hunted with Larry all the rest of the time, I was up against the same kind of thing.

About one o'clock I saw a big bull moose with the glasses, but the wind was wrong; to a great extent I took the stalk into my own hands, and in one and a half hours we had the moose about seven or eight hundred yards to windward of us, but he was

THE RESULT OF A CARIBOU'S CURIOSITY.

lying down in thick willows, ten or twelve feet high, well protected, and all we could see was the shine of his plates through the bush. We tried for half an hour all sorts of schemes to get near him but could not succeed, so had to satisfy myself sitting concealed in a small rise some 500 yards away; when the stalk commenced, I had thrown off hat, gloves, coat and vest, and for one and a half hours sat on the slope nearly freezing, but the moose did not move. We were a long way from camp, and I wanted to shorten the distance of travel in the dark, and especially to get over one very bad swamp while the light lasted.

I kept my hands as warm as I could for shooting, and at last told Larry we had better hallo and jump him. Had we blankets and grub, I would have stayed all night with him. When he got up I knocked him; first shot he shook his head and bucked, turning in the other direction, and I hit him again and kept firing, but did not drop him, and he started, we after him, finding the ground and brush covered with blood in two places. He was evidently shot on both sides. We followed the trail with blood on both sides of the brush when Larry pointed, and following the direction was the side view of his back, standing, the head concealed by a small pine. We estimated the distance at 600 yards, and I wanted to get nearer, but Larry said if he started again he would not stop for miles and that I had better shoot, so I took rest and at first shot dropped him where he stood. We shook hands, and Larry said it was one of the best shots he had ever seen, but what a disappointment was in store for me can only be realized by a big game hunter. I had killed another and much smaller moose.

We left him lying there and started for camp. About one-half mile away we saw two more moose, but soon found them to be a cow and large calf, so left them alone and went back to our horses. We arrived at camp a little before nine, very tired after the worst trip of the hunt, bogged and thrown on three different occasions. Going down the mountain to cross the Mosquito River and up the other side to camp, leading a horse over a country with no trail and full of every kind of obstacle nature can devise, and with a strong wind in freezing weather and no moon, was no joke, especially with the thought that, under favorable conditions, a doctor to set a broken leg or arrange other troubles was, going and coming, fourteen days distant—if he could come at all, which I doubt. Hamilton during the day had gone with Dennis, and Ned brought back his moose heads and some meat. As I knew we had from Hamilton's kill plenty of meat for camp, I felt guilty of destroying so much good meat of a harmless and noble animal, but that was soon dispelled, as I learned that Dennis and Larry had agreed with the Indians whom we left at Hudson Bay post that they would clean and cache all meat we did not use; we did so, marking the place according to opportunity. For example, at the place where I killed the moose we cut off all the top branches of a small pine and tied a red bandana to it, so that we got the heads, the Indians the meat. Had we not killed, they would have done so, and the heads would have been lost, besides the loss of the Indians' time, so that all hands gained by the killing.

Next morning Hamilton, myself, Dennis and Larry all went out to try and trail the big moose I had wounded. The Indians tracked over two miles with blood seen on both sides of the brush, but the track then ran into a lot of other fresh moose tracks, and they had to give it up. In the mean-

time Hamilton and I had lit a fire, went to my small moose and got some liver, which we toasted Indian style before the fire, made some hot tea and lunched heartily. When the guides came back we cleaned the bull and took the head and scalp to camp, where we arrived in the dark again, but making a better trip up and down the mountain and crossing the river, as Dennis knew the country.

I was off at first sign of daybreak, breakfasting with Larry on coffee and dry bread. I told the cook not to get up; he had been having a pretty hard time of it. It was snowing hard, and the cold bit into one. I hunted south of where Mosquito Cañon opens up, the snow getting worse, and about 8:30 I could stand it no longer; even stamping my feet would not restore circulation. The boots were shrunken with snow water, and my two heavy pair of socks made them too tight; besides the snow had caked and frozen on them. I had a fire lit, and took off the shoes and socks and found my feet purple and numb; the feeling was all gone, but soon came back all right. We started again, but found no sign or track of moose, and one day more was all we could spare in order to catch the boat at Wrangel. So, after a confab with Larry, I decided to take some food and blankets on one of the horses and go back to where my wounded moose had taken them into so many tracks, and stay out all night and next night if necessary. Being light, I could by forced marches catch up with the others at Telegraph, as they were to break camp at the time agreed on with or without me.

After lunch at camp Hamilton went out for some ptarmigan, Dennis being busy cleaning scalps and skins. I started and pushed on hard, and got where we wanted just in time for one hour's hunt, but saw nothing. We made camp in the dark among some pines, with a horse blanket for a wind break. We were up before four the next morning, and about seven saw a cow moose about 400 yards away, looking at us. Larry complained at our luck and was for going on. I said "No; we have seen signs that the bulls have commenced running, and maybe one is with her. At any rate, it will only take a few minutes, and I am curious to see what she will do."

At the first move toward her she ran, and at about fifty yards from her to the right I caught the flash of something bright, and I said "bull." Larry said "no," and I pointed where I meant, and by that time both were in full cry and full sight. Off went my heavy clothes for a race, as Larry said they might stand and look back, and I should then have the chance of a long shot. After a few hundred yards Larry dropped; I followed suit and crawled up to him through the low willows, and about one-fourth of a mile away he pointed out the horns of a big bull, evidently lying in a little hollow. We crept toward him, keeping as low as possible, the wind being in our favor. When about 150 yards from him he jumped like a flash into some high willows close to him. Larry called on me to shoot, but I refused, remembering my experience of three days before and the slashed willows that I had seen which had deflected some of my bullets. The patch of willows was not more than three or four acres in extent, and I kept on toward them, as if he went out right or left I could get half a dozen shots at him, and if he went out the upper end I estimated I could get three before he was over the ridge; and if he tried staying in I would have Larry drive him out. In less time than it takes to tell he was out at the upper end quartering, and I let him have it, and he was badly hit. By the time I had the rifle at my shoulder for a second shot his run was a walk straight away, and I had the line of his back up the ridge and dropped him, using a 7-millimeter sporting Mauser. The head was

"THE HEAD WAS A FINE ONE."

CONSIDERED GOOD FOR THIS COUNTRY.

a fine one in shape and color, the bell or tassel much above average and the horns had a spread of 54 inches and 21 points, which is considered good for this country, though there are bigger ones here—and a couple of hundred miles distant still bigger ones. When we came to scalp him, the skin at nape of neck was over one-half inch thick. In earlier days this is the skin that Indians used to shape as they pleased when green, and when thoroughly dried was like iron, and they used it for war shields. It would stop any knife or arrow that came against it.

Standing over him, with no pricks of conscience about wasted meat, my morning toilet in the snow, my bed covered with it when I woke, the dry bread breakfasts, swamps and marshes, were all forgotten and, strange to say, an hour after the sun came out and we had fine weather for several days. We had a very hard job getting the head and scalp secured on the pack horse, as we had no saw or axe to split the skull. We found the flank cut—evidently the younger bull had fought him away from the cow we saw—and next day on skinning the head found a small hole in the skull near the eye. It was a recent wound, but the scalp indicated it as two or three weeks old; evidently some other fight the old fellow had been in. The bull fell just right for cutting off his scalp, except a twist we had to get on his neck; otherwise we should have had to call upon the horse to help turn him.

Getting back to our temporary camp of the previous night, we had a second breakfast of moose kidney, bacon and hot tea. Larry, on getting things together, found his lunch of the day before, and said it would spoil if kept any longer; so he sat down and ate it up. An Indian always has room for more grub, but can go a long time on nothing when he has to. I have seen them sitting around camp fires cleaning skins, and once an hour or less put meat before the fire to roast, and eat, and eat, time after time. Larry once was out for five months and had absolutely nothing but meat to eat. When I asked him if he was not glad to get back and find bread, bacon, beans and potatoes, he said, "No, they tasted like old rags." We got back to camp early and found Ned had been out the day before and brought in my caribou, the meat being very good.

Hamilton had been out with Dennis and saw with the glasses four caribou together about one and one-half miles away. They rode as far as they thought safe, then stalked to about 600 yards and found two cows, a yearling and a young bull. As the cows have moderate sized horns, it is difficult at long distance to tell them from small bulls. He got a shot at 100 yards, but it was placed too far back, then he missed a running shot and dropped it at the third. The head was a very nice one for its size.

Next day we broke camp and started for home, hunting ahead this day in the hope of getting another caribou apiece, but saw nothing. Ptarmagin, almost entirely white now, were very plentiful. The second day we arrived at Hudson Bay Post (Sheslay River), and made the Indians there, who were then about starving, quite happy by handing each family some fresh meat and telling them of more which we had cached for them. We also gave Craig and Johnson some fresh meat. They had been very kind to us, giving us some fresh bread going and coming, and cared for drying our sheep scalps while we were above. In talking with them they confirmed what Mr. Calbreath said about the Indian laws of hunting rights, and Larry being looked on as a

trespasser. While in the main the Indians respect Dominion laws, they are Indian still, and only a few years ago, during Craig's time, they claimed some child had bewitched a man that was sick, and to save the man killed the child! The mounted police got after the man, but for three years he kept in the mountains. Finally they got him, and he, with a woman as witness, were taken to Victoria for trial; but he was not convicted, and they returned to Wrangel by steamer. Whether from fear of the boat's machinery, its rolling or some other mysterious cause, they both hung themselves on the boat. Mr. Bronson, of Wrangel, also confirmed the statement regarding the hunting rights of Indians according to their own laws—which is the strong underlying law, in spite of other laws of white men—but a white man is all right when hunting with the owner of the *illihee*.

Next day we pushed on to a basin about eighteen miles from Telegraph, and Hamilton went to catch some trout. Coming back he went into some swamp above his knees. He discovered a boat—another Teslin trail relic—to which he took me in the morning. It had been hauled over the snow eighteen miles out of the 160 they intended taking it, and then been abandoned. It was in three sections, the oars being there still. It was very light and strongly built, well ribbed up and still in good condition, though, of course, checked by the sun. It was about thirty-five feet in length and six feet beam. A stencil mark on it, still quite plain, showed it to have been made by Walter Dean, of Toronto. The paint was in very good condition.

Arriving next day at Telegraph, we found two of our crew had gone down the river, Captain John, Joe and Oscar remaining. A prospector, "Chris," wanted to get down the river; he had not been out since '98, and we were willing John should take him. He was a real good fellow, full of all sorts of experience, a large-hearted, open-handed man that had buffeted fortune with very little success. We found the river very low, the cold weather of late holding the water back in the mountains. This, with a head wind, delayed us so that the day we had saved up for hunting grizzly had to be given up, and we had only two short evening hunts and one a little longer one morning. Coming down

THE KILL.

we saw a black bear on a sand bar. We ran the canoe up, and I got ashore with Hamilton, but the bear was taking to the woods and got there before it was any use taking a shot. The evening hunts up a couple of salmon creeks showed plenty of tracks, but all we got was lots of wading in deep alluvial mud.

The morning hunt was at a creek near Hudson Bay Flat, where our Indians had killed many bear, and Captain John felt sure of our finding grizzly; so we were there early. We went as far as we could with canoe, then got out and waded, Hamilton, myself, Captain John and Oscar. There was deep mud, wet brush and lots of dead stinking salmon, partly eaten by bear. Live salmon were also plentiful in the stream. We all went about one-quarter of a mile; then Hamilton and Captain John went into a blind to await events. Oscar and myself went on to the head of the creek where the brush met. Tracks just made were thick, some very large and one enormous. Hamilton jokingly said it was as big as an Armour ham, and really he did not much overdo it. The stream where we left the canoe was about twenty-five feet wide, finishing to nothing. Oscar and I in turning a little bend jumped a big bear (from his track), but did not see it. He was in the brush and breaking it fast. We could hear his teeth batting together, which they will

do when angry. It would have been suicidal to follow into the brush, and was almost so to hunt them in the manner we did. One shot in such close quarters was all that was possible before this species (bald face grizzly) would be on you, unless the shot was in the brain. You must not fire until almost face to face; if he hears or smells you he will invariably get away; if you come on him asleep or suddenly, he will pause an instant, long enough for a shot and that is all; and he will always attack if wounded or asleep, and will generally do so if surprised at close quarters. This is what I am told by men who kill them.

Oscar, rifle in hand, creeping step by step, with eyes searching and face hard set, was a study for an artist, and called to my mind my boyhood days and Fenimore Cooper's novels, which I then read for the first time. At the head of the creek there were eight broad trails where the grizzly came down to feed, and there were several others on the banks of the creek. Oscar made an excuse to remain behind, and told me to go down to the canoe, over a quarter of a mile away. Perhaps he wanted to try me out, but I called his bluff and went, feeling very creepy at times and much better when I saw the canoe. So ended our grizzly hunting; rushed for time, illy advised and recklessly performed in such close quarters, with heavy mud that rendered quick movement imposible in case of attack. We arrived next day at Wrangel, five hours before sailing time of the steamer; but found in our absence the schedule had been changed, and that only an up steamer would call for several days, and she would be the first back. So we went to Skaguay on her, over the White Pass to Lake Bennett, not very well pleased at having to lose a week's time, as the steamer on arriving at Skaguay, finding but few passengers, waited forty-eight hours to catch a lot on their way out from Dawson.

To give an idea of this as a game country, I would say we got four bull moose, four big-horn sheep, two caribou and lots of small game. Leaving out days used cleaning heads, and so forth, the actual time of hunting was seven days apiece. To any one contemplating a hunting trip for moose, caribou, sheep and bear I would say there is lots of country and lots of game, but would advise not starting from Wrangel until about the tenth of September, and allow six or seven weeks for getting back there. Of course, if extra good heads only are sought, more time is needed; in fact, to insure getting such one should go without any regard to time of leaving. Unfortunately, our time was too limited. In going in at about the date I name the chances are better, as bulls will then surely be running and out of the velvet, and the snow will be beginning to lie well, making tracking easier. Mountain sheep will be working lower down and caribou will be arriving from the north in larger numbers.

Warm clothing is needed, and good light rubber coat and pants for rain on the river; also large, roomy boots, capable of wearing loosely with two heavy pairs of socks. Have them as light weight as possible for the service and as near waterproof as you can get them. If taking more than one guide, be sure and take men used to hunting together. For hunting grizzly I would advise a light Peterboro canoe, quietly poled up the salmon creeks. By sitting in the bow a reasonably safe shot can be got, or you can wait in some particular spot one or two hours, early morning and latter part of the afternoon, and can hear them coming down to feed. The breaking brush will give you ample time for getting a safe shot; but I would not advise walking up a narrow creek in heavy mud. I shall certainly not hunt them that way again. Bring a .22 rifle with you for grouse, ptarmigan and so forth, and bring a few fully jacketed bullets to get an eagle without spoiling it.

You can not make a mistake by getting your canoe from John Bradley, and if he can not go, his partner, Big Charlie, is all right. Dennis is a first rate hunter and an expert skinner. He knows how a taxidermist wants a scalp; very few men do. Larry I found an excellent hunter—hard working and obliging. Our cook, Frank Murphy, was very obliging, but from what he said I do not think would go on a similar trip again. Arrangements should be made in advance at Wrangel about canoe and at Telegraph Creek for horses and guides. Mr. Hyland did the latter for us, and at his store we found all the provisions we needed at reasonable figures. At Wrangel you can get all you need in shape of supplies for the up river trip, though a few little extras will not be amiss to bring with you.

TROPHIES SECURED ON THE TRIP.

We found everyone we met ready to do anything they could to help, and especially so in the case of Mr. and Mrs. Ellis, of Glenora; Mr. Bronson, of Wrangel; Mr. Simpson and others at Telegraph, and Craig and Johnson at the Sheslay River Station. The proprietor of the Wrangel Hotel also did all he could for our comfort, and his hotel is better kept than usual at places of the size. The object of this article is to make better known to sportsmen a good country. Our measurements and distances are not mathematical or our knowledge of game scientific, but what we saw and learned we noted down for the information of friends and others, Mr. Hamilton's notebook forming the basis of the article as much as my own.

SPORT IN AFRICA.

By Elmer E. Davis.

PART II.

HAVING been steadily at work for some time, I determined to take a day off and have a try at bush-buck. I desired very much to secure some good heads of this animal, as they are considered fine trophies, being extremely hard to find in the dense undergrowth, in which they make their homes.

The best time to hunt bush-buck is early in the morning or in the evening, as they are then feeding in the small clearings or open spots near the edge of dense thickets, into which they retreat during the day.

They are without doubt among the quickest and most cautious of animals, and to secure them a hunter must use more than ordinary skill and judgment, for while the least noise will ordinarily put them to flight, they are also accomplished skulkers, and be you ever so quiet and watchful you will often be unable to find one. You may also have walked past them in plain sight without knowing it, for they generally feed around or under bushes, with their heads down near the ground, leaving only the back and part of the body exposed above the high grass.

Their color varies in different individuals from a grayish brown in the younger to a deep brown in the older animals, and is not easily distinguished from the brush near which they are found; so if you ever hunt bush-buck for several days without seeing one, don't get discouraged. It was only after many attempts, and that, too, in a country where they were fairly plentiful, that I finally bagged a couple of the elusive little phantoms.

As I got up and dressed rather early on the morning in question Mr. Snowden (an American who had been my partner in loneliness for several days) asked me where I was going.

"After bush-buck," I replied; and you should have heard him laugh. For, knowing of my previous failures in that line, he was inclined to poke fun at me, and the last words he yelled as I left camp were: "I will send a porter to Nekura for a yard-stick to measure the horns."

THE EDGE OF THE "BUSH."

I took only two porters this morning, for the smaller the party the less noise would be made. We arrived at the place where I intended entering the forest just as the sun appeared, and leaving the porters to follow at a short distance behind, I entered a narrow opening which I knew extended some distance into the forest. Every little while the opening would widen out or narrow down, and its course was so full of turns that I was constantly stopping to look ahead and investigate dark corners.

The grass being nearly two feet high and laden with dew, my legs were soon quite wet and my feet might as well have been in a pond, for I was wearing light Hindoo slippers, which are easier to walk in than shoes but a long way from being water-tight.

I had advanced probably half a mile when I saw where the dew had been knocked from the grass by some animal, whose track led around some bushes, and I moved cautiously ahead to investigate. After a while I saw a doe bush-buck not more than forty feet from me. She was nibbling the grass under a bush and seemed totally unaware of

my presence. Motioning the porters to keep back, I watched her for some time.

A person not previously informed would hardly recognize the doe of this species as belonging to the same family as the buck owing to the difference in color and size, the doe being in most cases of a light slate with a few small dots of dirty white scattered on the back, and seldom more than one-half or two-thirds the size of the buck. The one peculiarity they both have in common is their manner of walking with little mincing steps, which, combined with the fact of the back being carried humped up, gives them the appearance of having a chronic stomache-ache, and it is only when running that a person is able to discover their grace.

Thinking I could get a snapshot with my pocket camera, I quietly adjusted it and snapped the shutter. At the slight sound produced the doe disappeared as if by magic, not even breaking a twig as she entered the brush. Going deeper into the forest I came to an open space containing about an acre, which was covered with luxurious grass. As it appeared to be a favorable place, I took a look through the field glasses at the brush around the edge, but could see no game, and sat down upon a log to wait for the porters, who had asked permission to gather some roots.

I had been sitting about fifteen minutes when I thought I perceived a movement of something on the other side of the clearing, under a bush. After looking steadily in that direction for some time, I concluded my eyes had deceived me, and was about to get up when the buck—for such it was—raised his head above the grass to nibble the leaves on a higher branch. He had a fine head, but I was too busy just then to stop and admire it.

At the crack of the rifle he sprang into the air and fell backward; but he was up again in a flash and darted into a bush a little ways out from the edge of the thicket.

BUSH-BUCK. (*T. scriptus roualeyni.*)

I felt that I had made a poor shot, but hoped still to head him from the jungle. Running quickly around the brush, I waited for him to come out. He was there still, for twigs could be heard rustling as he walked about. Suddenly there was a flash of brown, and the little fellow left me staring at the place where he had disappeared in the jungle, after clearing the sixteen or eighteen feet which separated him from it at one bound!

I disliked to leave him after wounding him so badly; the grass where he had leaped was literally sprinkled with blood, and I was sure he could not go far. So entering the jungle I began to hunt in a circle, most of

MY FIRST BUSH-BUCK.

the time on my hands and knees. In this way nearly an hour was spent, but I at last found him under some vines, with only one leg exposed to view. It took a hard pull to get him to the clearing where I could obtain a good look at him. The bullet had struck too low to kill him instantly; it had been my intention to hit the back bone —which should always be the target in shooting these animals, for if not disabled they spring into the brush and invariably get away. It is useless to try a heart shot, for although it kills them their vitality is so great that in most cases they get far enough away to avoid being found.

Leaving the porters to dress the meat and take it to camp I started through the forest, following a narrow path made by the Wanderobba natives, which would lead to a stream a mile or so from camp.

Proceeding quietly along the path for some distance I came to a sharp turn, on rounding which I stopped instanter. For there, scarcely an arm's length from me, was the tail of a rhinoceros. Looking over the back of this fellow, a larger one could be seen directly ahead. It flashed through my mind that I was in a bad place, for though it is easy to dodge a rhino where the brush is not thick I had no desire to try an encounter here where the path was walled on both sides with vines so thick that a person could not penetrate them, and it had to be either go ahead or retreat with me. I did not have much time to decide, for they discovered me about as soon as I saw them and a loud snort caused me to take to my heels with more haste than grace. It was useless to think of shooting with any degree of certainty in that narrow path, so retreating to about thirty yards I jumped into an open place expecting the beast to run past me; but no rhino appeared and after a few minutes of no small anxiety I came to the conclusion that they must have been as anxious to get out of the way as I was and had gone in the other direction. This assurance makes me smile as I think of it now, but it was not half so funny at the time. Not caring to meet the rhinos again I took a back track until more open forest was reached, then turning in the direction of camp soon found the stream I was looking for.

After bathing I walked along the stream a short distance expecting to see a stein-buck (*Rhaeochoerus aethropicus*). One soon darted out from a bunch of grass and ran in the direction of some mimosa scrubs out on the plain, affording me a good straight away shot. The bullet knocked him end over end and upon examining him I found it had grazed the back, hitting the head and tearing away a part of the latter, including one of the horns.

These little beasts are very cunning as a rule and are often seen running to get behind some rock or bunch of grass, from which point of vantage they will watch a hunter until assured he is out of gun range. Coming suddenly upon them where there is no cover except short grass they will lie down, stretching out flat on the ground, and are no doubt often successful in avoiding detection. When feeding it is a difficult matter to tell the stein-buck from the doe.

WOUNDED STEIN-BUCK, NJORO PLAIN.

YOUNG WARTHOG.

as the horns of any but a very old buck will be completely hidden by the ears which are long and broad in proportion to the body. One evening I sat for nearly half an hour watching one of these little fellows, trying to make sure he had horns, and it would have taken a longer inspection to

STEIN-BUCK. (TEN POUNDS WEIGHT.)

determine that fact had he not taken a notion to lift his hind leg and scratch his neck, turning his head as he did so and exposing the horns to view. His head now goes to swell my collection and the flesh served as the nucleus of several good meals.

Next to young wart-hog I consider stein-buck the best meat I ever tasted, for it comes as near to "melting in your mouth" as meat possibly could. The flavor is excellent and lacks the strong gamey taste of most wild animals. There is, however, one fault with it—there is too little of it, a full grown buck dressing no more than eight or ten pounds.

Half an hour's walk brought me to camp, where the porters had arrived ahead of me. Mr. Snowden was sitting outside on a kerosene can examining the bush-buck's head, and he remarked as I came up that he believed that "next to himself" I was the best hunter in camp.

This bush-buck belonged to the East African variety (*T. scriptus roualeyni*), the horns measured on outside curves thirteen and three-quarter inches—not a very long set, but nicely curved. The remaining horn on the stein-buck measured four and one-eighth inches, being a good length for that part of the country.

As we sat after luncheon looking out over the plain we were treated to the very unusual sight of a gazelle being run down by wild dogs, who acted in a very intelligent manner. They seemed to make a point of running the gazelle in a circle, with two dogs on the outside, while the rest ran across lots in a leisurely way. Every ten or fifteen minutes the two outside dogs would get a relief, two fresh ones taking their place. It took nearly three-quarters of an hour to catch the poor little fellow, who I believe was more frightened than exhausted. Had they not been so far away we would have tried to save the gazelle, for it was a pitiful sight to see him making such frantic efforts to get away from his tormentors. It was out of the question, however, and, after all, an honest dog must live. It was Kismet—and then again were we not going gazelle and zebra hunting ourselves in a few days? Our porters, like the wild dogs, had to have meat to eat.

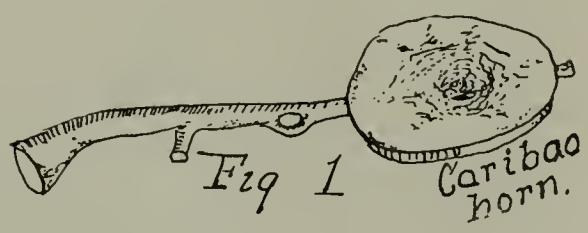
THOMSON GAZELLE.

SOME ODD SPORTING ARTICLES OF THE PHILLIPINES.

By An Ex-Soldier.

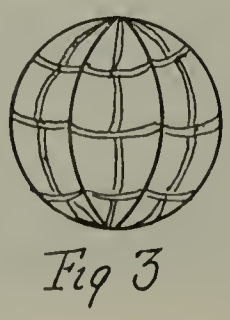
I HAVE just returned from the Philippine Islands, after a residence there for four years. During this period I was with the army and traveled a good deal and had a good opportunity to notice how the natives engaged in sports. Almost all of the devices utilized by the natives are of a home-made character, although many are now buying American and other imported sporting goods.

Take for illustration the drawing figure 1. This is sketched from one of the rackets I



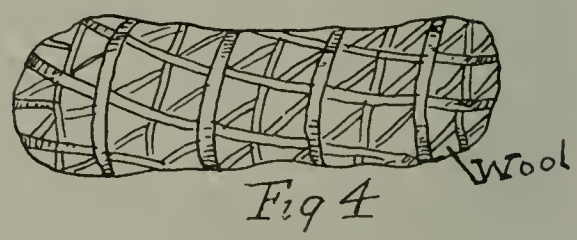
saw the natives use in a game in imitation of our polo and lawn tennis. The natives are great imitators. They can play our national baseball game in all the provinces, and play it well, using many of our terms in shouting to one another. They have an umpire, who gives decisions in the American tongue. They buy our balls and bats and play as we do, yet before the American soldiers introduced the game it was unknown here.

The native racket is usually made of caribao horn, with a wood handle. The natives play with a catch-ball affair made of a hollowed stone tube, as in figure 2, fastened to the handle of wood as herewith shown. The little stone ball is tossed high in the air and caught in the tube. Some of the balls are made after the plan of our football, of plaited bamboo parts, as in figure 3.

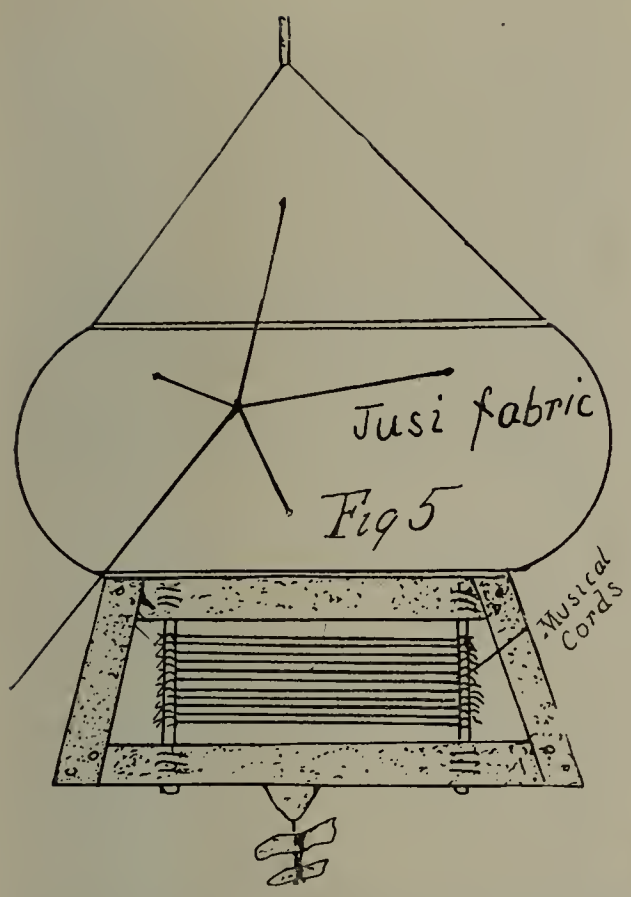


This ball is kicked high in the air on the heel of the native, and when it falls another native lifts it on his heel. From a dozen to twenty usually take part in the game, and they keep in a circle and manage to have the ball in the air all the time. Some of the kick-balls are made in the tumbler fashion and stuffed with wool, as represented in figure 4. The idea is to kick the cylinderical affair so as to make it tumble about in the air, creating laughter among the players.

The tuneful kites of the Filipino are well worth hearing. They used to put us to sleep many a night. The native makes a rather odd-shaped kite (as in figure 5), which dodges and ducks tremendously.

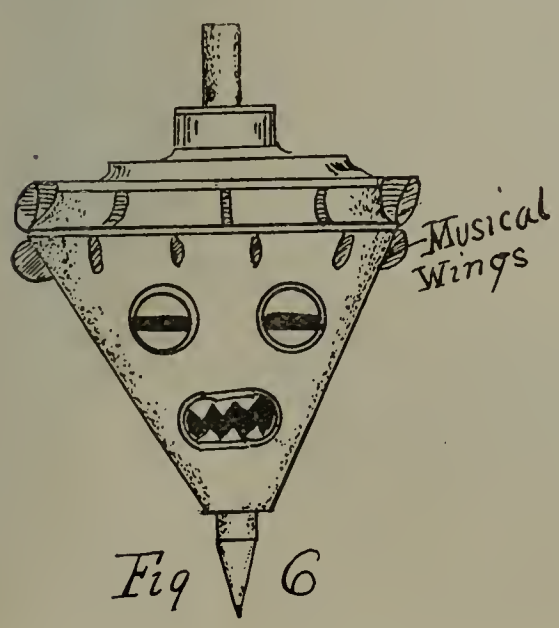


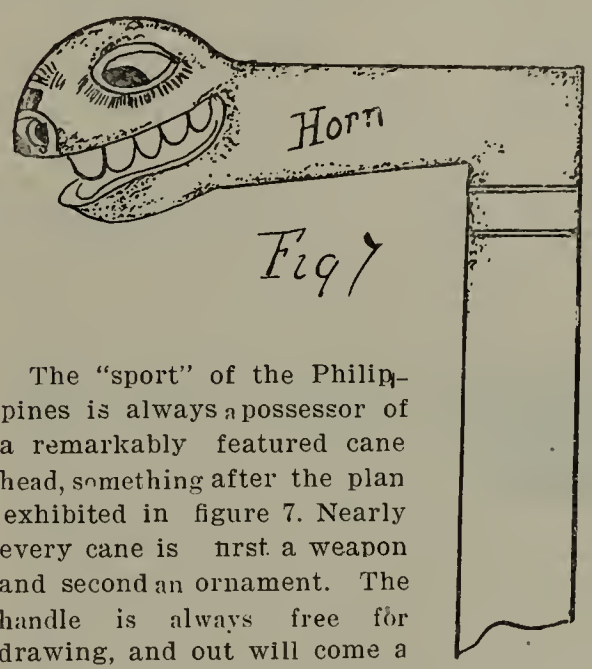
The covering on the bamboo rods of the frame is the light tough silken texture called "jusi," made from the pineapple fibre. At the base of the kite is a wood frame supporting a series of fine wires, drawn tightly across and fastened, as shown where the cords are marked. The result is that considerable vibration occurs when the wind blows steadily through these wires, and some fine harmonies are brought out. When the kite ducks several hundred yards across the skies the music brought out is something wonderful to hear. The tunes vary with the shifting winds, the increasing and decreasing power of the drafts and other conditions which arise. Consequently a kite develops varying notes throughout the night and lulls one to sleep.



The native boys very often fly these kites all night.

The top spinners of America's new Orient in the southern Pacific are likewise quite novel. These, too, make music. The native is very fond of any kind of music and endeavors to have it at all times. The plan for making top music consists in shaping the top itself very similar in design to the American top, as illustrated in figure 6. The added trimmings and carvings form the exceptional portion. First the native makes some hideous effect of a head with gaping mouth and fangs, colored eyes and other striking features. He carves the wood and stains it in colors for these effects. Then he arranges for the music-producing parts, which consist of ears or projections so arranged around the circle of the top that music results. The music is usually nothing more than a monotonous excess of humming notes, but the native manages to get a variety by fanning with hat or by arranging a fan of palm leaf at one side, checking the air-draft in such way that variations in notes follow. The parts which are mortised into the circle of the top ridge may be called wings. Sometimes thin sheet metal is used for this purpose, and I likewise saw feathers employed, also thin wood.





The "sport" of the Philippines is always a possessor of a remarkably featured cane head, something after the plan exhibited in figure 7. Nearly every cane is first a weapon and second an ornament. The handle is always free for drawing, and out will come a long sharpened steel instrument ready for war. The native takes great pride and delight in the ownership of these canes.

The natives get great fun in their games of ladder mounting. The old-time fire organizations of the provinces of the islands were composed of ladder and bucket men exclusively. This was the condition when our first troops arrived. The first soldiers were given exhibitions of the feats what the ladder men could do with ladders made of bamboo as represented in figure 8. This type of ladder is usually about thirty feet high and to amuse us the little brown fellows would stand up a ladder, run up it, maintaining their balance, and dump some

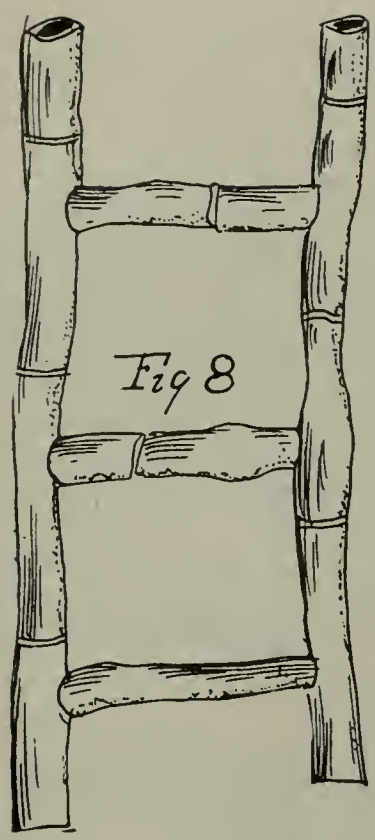


Fig 9

water from a bamboo tube carried on the back, sliding down before the ladder went over. It used to please us immensely. Now and then a native would fall but he always managed to get clear from the ladder and strike on his feet. Rings form part of the "sport's" fittings in the islands. He may be without many clothes but he always has a good ring. He polishes it and he wants to have your attention drawn to it. Figure 9 is an example of the common type of native ring seen on the hand of the native. It is usually built up in tiers as shown and is generally set with brightly shining emeralds.

A TRAGEDY OF THE PLAINS.

By F. E. Covey.

WE WERE not hunting buffalo for the hides and tongues—as was the practice at the time the tragedy I am about to relate took place—but were a surveying party sent out by the United States government. We were in Central Eastern Wyoming, following up the north fork of the Platte River, although at times several miles from the river proper. The country was comparatively rolling and the place we had chosen for the night's camp was close to a deep ravine which at the upper end or where the steep, perpendicular sides began, was perhaps two hundred feet deep for a distance of nearly a half mile, thence gradually dying out to the prairie level.

Our camp was near the mouth of this cañon, where we found a considerable quantity of brush wood. We soon discovered that we had neighbors, several Pawnee Indians having their temporary camp well up toward the deep end of the cañon; why they were there we never knew; it may have been because they were afraid of hostile Sioux and had gone in this place to camp so that their campfire might not be seen, or to gather wild plums or herbs of some kind. There were four "bucks" and six or seven squaws, but as they were not inclined to be friendly we paid little attention to them, and after supper we all turned in for the night except one man, who was to keep guard till midnight and then change off with one of the sleepers. It seemed but a short time before I was awakened by the man on watch, and told that it was my trick on guard. I rolled out with as good grace as possible, and my companion rolled in and was soon snoring with the rest of the sleepers.

I had walked around for some time when I suddenly became aware that something was wrong, as the animals seemed uneasy, frequently going on a trot to the length of their ropes and at times giving a low snort and coming as near the wagons as they could. Then I felt the ground tremble and heard a low rumbling sound which grew increasingly louder until I became alarmed and awoke our guide, an old plainsman.

On hearing the sound he shouted, "Wake up, you fellows! There is a herd of buffalo coming this way, and if they don't miss us they'll hit us mighty hard!" In less time than it takes to write this the whole camp was astir, our guide now giving orders to get the mules inside the circle of wagons—or rather, to get the four big wagons between the mules and the buffalo herd—and to take all the cartridges we could carry and turn or split the herd if it came our way unless we wanted to be trampled to death. We had no time to spare, so keeping close together we advanced toward the oncoming peril. The moon was shining brightly, and we could now discern the mass of heavy beasts which was moving at a good fast trot. One man was busily piling stuff on the fire, thinking that this might help to turn them out of their line of march.

We soon discovered that we were not exactly in their road, but that they were a little to the north of us, only a few stragglers on the outskirts coming within one hundred yards or so. "Give them a shot, boys," said some one, and at this every man took three or four shots with his Henry rifle, aiming as best we could in the moonlight. The shooting started them into a frenzied run, and they went tumbling into the cañon, those in front being forced over by the pressure of the unseeing mass behind, each beast as he fell giving a roar or bellowing shriek impossible to describe. The first ones going over had been killed outright, but as they commenced to pile up they formed a cushion for those coming on after.

"May the Howly Virgin help thim Injuns," said our Irish hostler.

Running as close as we dared to the herd we fired our rifles and yelled like madmen, hoping that if not able to turn the herd we might at least awaken the Indians if not already crushed and give them a chance to get out. Soon the bulk of the herd had passed. as it was only one side of the drove that had been forced into this hole, the others passing to the right. We crawled to the edge of the cañon and looked over, but as it was too deep and too dark we could only guess at what was going on below; so the only thing to do was to wait for daylight. The noise gradually grew less and as daylight began to break only an occasional roar and snort could be heard. As soon as we could see well enough to believe we dared risk it, we went to the lower end of the gulch and entered the death trap.

What a sight! The buffalo, piled twenty deep, were nearly all dead; those which were only crippled we put out of misery as speedily as possible, as the sight was heart-rending in the extreme. Our Indian neighbors were utterly annihilated, although they had not been camped quite far enough up the gulch to receive the heaviest bulk of the drove as they came tumbling over in their wild stampede. Going to the place where their camp had been we found their bodies literally trampled and crushed into the earth, cut beyond all semblance of human beings. One squaw was lying under a buffalo carcass with just her hands and feet sticking out to show that the heavy animal had without doubt fallen squarely on top of her. We did not move any of the bodies, as they were lying in the midst of so many of the monstrous beasts that it would have taken days to get the carcasses out of the way.

We cut out all the tongues we could carry, roughly curing them with what salt we had to spare and moved on. I have forgotten many other tragic Plains events, but the noise made by those buffalos as they went over the precipice, and the sickening details of the way those poor Pawnees met their tragic death, has never been effaced from my mind.

WESTERN FIELD.

The Sportsman's Magazine of the West.

OFFICIAL ORGAN
OLYMPIC ATHLETIC CLUB AND THE CALIFORNIA FISH AND GAME PROTECTIVE ASSOCIATIONS.

PUBLISHED MONTHLY BY
THE WESTERN FIELD CO., (Incorporated)
SAN FRANCISCO, CAL.

Offices; 4 Sutter Street, corner Sansome Street. Telephone, Main 1262.

Registered at the San Francisco Postoffice as Second-Class Matter.

FRANK H. MAYER, - - - - Managing Editor

Matter for publication should be addressed "WESTERN FIELD," 4 Sutter Street, San Francisco, Cal., and not to individuals connected with the magazine. All copy for new advertisements, changes or discontinuances, must be in hand not later than the 10th of the month preceding date of issue, in order to insure attention.

THE GENTLE ART.

JUST now there is a great delving among tackle boxes and fly hooks, and the tender solicitude displayed in the examination of rod wrappings and of the thousand and one other furbishments of the angler's kit, is a thing beautiful to contemplate. There is something almost akin to reverence in the gentle care with which the favorite old rod is jointed retrospectively in each devotee's den, and a gleam almost of adoration in the eye of the wielder as he swishes it daintily to and fro trying its temper and noting its responsive action. What is there on earth as warm and constant as the love of a genuine fisher for his favorite rod!

In these days, dear brothers of the angle, when the heart warms with anticipations of the glorious hours to come, and your receptive minds can indulgently stand the strain of a homily, we ask you to make one good resolution: Swear on the cross handle of your reel that you will not fish for mere count or weight; that you will mercifully abstain from wanton creeling and that you will labor to convince every fish hog of the error of his ways. That you will leave a few "for seed" in every water and that you won't lie any harder than you can help.

So will you be blessed above all blessings and live long and wax fat in the land. There will incidentally be some fish saved for posterity.

A MISTAKEN IMPRESSION.

TRAP shooting at inanimate targets is popularly supposed to be merely a recreative amusement and one entirely devoid of any other practical benefit to the participants therein. Even the most enthusiastic devotees of the sport will reluctantly confess that they do not think it of any advantage in so far as its aid in perfecting their regular field work is concerned; in fact, they will usually claim that the conditions are so entirely different from those encountered afield that skill acquired in the one often interferes with or otherwise seriously modifies the proficiency attained in the other.

We think that a little reflection on the part of the shooter will disprove this impression. The very difference of conditions affords practice of a valuable nature to men who very often are compelled to do quick snap shooting afield, and perfects their "time" and action in the handling of the gun. Another even more valuable factor is the practical acquaintance which the shooter makes with the individual peculiarities of his gun's shooting and the ballistic differentiation of the various kinds of powder, wadding and shot which he and his associates employ. It is in trap shooting, with its comparative constancy of flight, distance, elevation and velocity of targets that the sportsman learns by experiment and experience which powder is the quickest, strongest, cleanest and makes the most regular pattern. Here are tried out all the quantities of recoil, odor, smoke, chamber pressure and regularity of propulsion, and here only—aside from trials at a stationary target—does a man learn his personal error in holding, pulling and "leading" his target object. The shooting at inanimities, in short, determines the fit or misfit of the shooter's weapon and the best ammunition combination to use in it. It begets confidence in one's own skill, overcomes nervousness in handling the weapon, and inculcates

in every shooter a proper regard for other people's safety and convenience.

Then it begets a commendable good fellowship and leads to many pleasant and profitable associations. It inspires an ambition for proficiency that leads inevitably to the study of gun mechanism and ballistics—which of itself is a liberal education. Best of all it takes one out into the pure open air away from the debts and duns and deviltry of a care-filled modern life and puts new red globules into one's depreciated blood, a gust into the palate, and a zest into existence; for each explosion blows away some cobwebs from our business befuddled minds and brightens the vista of the mental and physical perceptions.

A STUDY OF FUTURITIES.

THE little unpleasantness just now obtaining in the Orient is a conclusive proof of the utter futility of the "peaceable arbitration" theory in the settlement of great national differences. The famous Hague tribunal has now resolved itself into a thing of contempt and derision and we find the quondam peace-loving exponent of an universal disarmament theory of a few months ago now savagely eager to wipe his little brown neighbor entirely off the geographical slate.

It is a significant fact that there is not one really great and enlightened power in the world to-day that is not more or less presently engaged in warfare with some other nation or tribe, and it is more than a probability that every nation of prominence, not excluding our own beloved one, will be involved shortly in the greatest conflict that has ever desolated the earth. Statesmen may prattle of humanity and dream of arbitration but the hard facts of the matter are that pugnacity is the dominant quantity in the male of every created species, and just as long as there are two normally endowed men on earth who have conflicting interests just so long will there be "scrapping" either legal or manual between them, with the chances always greatly in favor of the latter. This likewise extends to nations as units, who while agreeing in one concerted breath to refer their differences to an arbitration tribunal are nevertheless daily conditioning themselves for the physical combat which they realize is inevitable and which they all anticipate and prepare for accordingly.

If, then, it be an inseparable condition of life that men must fight for their ends why not prepare ourselves for it? It is conceded that owing to modern conditions of armament and so forth the battles of the future will be fought at long range. That entails to success the necesary skill to hit your opponent at thousands of yards distance and to repeat the performance with certain constancy. In a word, victory in future field engagements will attend that body or bodies of soldiers who can deliver an accurate, rapid and effective fire at extreme long range. And that brings us to the marrow of our subject.

The United States has practically no standing army to speak of. We depend more upon the personal attainments and courage of our citizens at large than does any other nation on earth. It is boastingly asserted that every American is a natural soldier and needs only mobilization to constitute an impregnable national bulwark against alien offense. This is all very pretty sentiment but it is likewise all puerile rot. No matter what a man's physical or moral courage may be he is just as vulnerable to a well-aimed bullet from a coward's rifle as though he were the veriest craven on earth. What America needs is not brave men to be shot but brave men who know how to shoot—and shoot effectively, be it marked, at the extreme long ranges which modern warfare exacts.

The best time to begin training a rifleman is before he is born. Given a father who not only knows how to shoot but who actually does shoot as well, and it is odds of a hundred to one that his son will inherit his love for the sport and eventually acquire his skill. Failing that hereditment let us begin with the man-child as early as possible. The public school is the logical place to commence. Put into the hands of primary and secondary school teachers actual working models of the various arms of national adoption and let them familiarize their pupils with their parts, workings, uses—and incidentally their dangers. To

advanced lads of larger growth give instructions in the manual of arms—which in itself inculcates discipline of the highest order—and let military rules prevail. The lads of twelve and upward will have attained to such a proficiency under this cumulative instruction that they may be given actual practice at the butts, increasing the range gradually until at eighteen years of age they can give a good accounting of themselves at the greatest distances they would actually encounter in warfare.

If we must breed warriors let us make a good job of it. It will not only be a perfection of our national resources but be, at the same time, a liberal and valuable education to our boys. It will diminish accidents and catastrophes in the handling of firearms and will intensify and conserve the respect which nations are already according us. We have a reputation of being the world's best riflemen which it would pay us to make good.

In this connection we earnestly urge the revival of long range shooting by the fraternity. It is very engaging to be able to make a ninety per cent or better score at a measured 200 yard's range with a specially devised shooting machine which bears no more resemblance to an actual service rifle than it does to a nursing bottle, but such shooting with such weapons—even were that possible in warfare—would not fill an emergency ambulance in a year of Sundays when employed at unknown long range distances against an enemy who had an efficient high-power modern rifle and the wit and skill to use it effectively. By all means let us encourage the kind of shooting that will, in time of bitter need, keep us on the social and national plane established by our old Colonial forbears who literally lived by the rifle and in so doing made it possible for us to live in turn. Let us have some one and two thousand yard work with rifles that will kill at that distance. It begins to look as though we will have use for the knowledge and skill derived from such practice and that before many moons have passed by.

And above all, don't forget that it is the present American boys who will be the future American soldiers. To use a homely adage it is hard to teach old dogs new tricks. A sapling's education should begin at a very tender age. It is best to teach the young idea to shoot straight. We will need bullseye work in our next war.

AN INTERESTING REPORT.

EDITOR WESTERN FIELD: As County Game Warden of Sacramento County, I report to the Board of Supervisors every month, and not having sent you the same since February, 1903, I think it may be of interest to you and possibly the readers of WESTERN FIELD to know what we are doing in the interest of game and fish protection in this county. Following are excerpts from my monthly reports for the year 1903:

I have seined and saved many thousands of small black bass and perch from ponds that would have become dry and have stocked every available stream and lake in the county and several lakes in counties adjacent to this. I have stopped the practice of dumping crude oil into the streams in this vicinity. I have destroyed many contrivances for trapping quail, and I think broken up the practice of netting them. I have had printed three thousand copies of the State game and fish laws with all county ordinances thereto. I am pleased to say that the laws for the protection of fish and game are upheld by the courts of this county, as every offender brought before them by me during my one year of office has been convicted and fined as follows:

One for selling undersized bass.
Two for netting black bass.
Two for killing deer during close season.
One for selling trout during close season.
One for having 281 ducks in his possession.

There were sold at retail in the markets of this city 46,200 ducks, for the season of 1903-04, against 41,500 for same season last year, an increase this year of 4,700, and at a very low estimate half the number more (23,100) by peddlers on the streets of the city, making a total of 69,300, which conveys an idea of the enormous value of one kind of our game alone, showing the necessity of protection and care necessary in the execution of my duties. I have received much encouragement and assistance from the State Board of Fish Commissioners and Chief Deputy C. A. Vogelsang, for which I am grateful.

GEORGE NEALE,
Game Warden, Sacramento County.

President.

H. T. Payne, San Francisco.

Vice-Presidents.

Dr. A. M. Barker, San Jose; J. H. Schumacher, Los Angeles, J. Sub. Johnson, Visalia; H. A. Green, Monterey; J. D. Armstrong, Paso Robles.

Secretary-Treasurer.

E. A. Mocker, 1316 Hayes St., San Francisco.

Executive Committee.

C. W. Hibbard, San Francisco; H. W. Keller, Santa Monica; J. Sub. Johnson, Visalia; F. H. Mayer, San Francisco; W. W. Richards, San Francisco.

Membership Committee.

W. W. Richards, San Francisco; J. Sub. Johnson, Visalia; A. R. Jones.

Membership Committee.

S. D. Merk, Paso Robles; W. W. Richards, San Francisco; E. A. Mocker, San Francisco.

Local and County Organization Members.

Name and Location Secretary. Address.

Alturas—R. A. Laird, Sec., Alturas, Cal.
Angels—Walter Tryon, Sec., Angels Camp, Cal.
Arroyo Grande—S. Clevenger, Sec., Arroyo Grande, Cal.
Auburn Fish and Game Club—E. A. Francis, Sec., Auburn, Cal.
Chico—* * * * Sec., Chico.
Cloverdale—C. H. Smith, Sec., Cloverdale, Cal.
Covalo—H. W. Schutler, Sec., Covalo.
Deer Creek—Jos. Mitchell, Sec., Hot Springs, Cal.
Fort Bragg—Thos. Bourns, Sec., Fort Bragg, Cal.
Fresno—H. Palmer Black, Sec., Fresno, Cal.
Grass Valley—John Mulroy, Sec., Grass Valley, Cal.
Hollister—Wm. Higby, Sec., Hollister, Cal.
Humboldt—Julius Janssen, Sec., Eureka, Cal.
Jackson—O. H. Reichling, Sec., Jackson, Cal.
Kelseyville—Chas. H. Pugh, Sec., Kelseyville, Cal
Kern County—E. A. Pueschel, Sec., Bakersfield, Cal.
Kings County—S. S. Mullin, Sec., Hanford, Cal.
Lakeport—B. F. McIntyre, Sec., Lakeport.
Laytonville—J. G. Dill, Sec., Laytonville, Cal.
Lompoc Game & Fish Protective Ass'n—W. R. Smith, Sec'y, Lompoc.
Los Angeles—L. Herzog, Sec., Los Angeles, Cal.
Madera—Joe Barcroft, Sec., Madera, Cal.
Marysville—R. B. Boyd, Sec., Marysville, Cal.
Mendocino City—O. L. Stanly, Sec., Mendocino City, Cal.
Monterey—C. R. Few, Sec., Monterey, Cal.
Napa—W. West, Sec., Napa, Cal.
Nevada City—Fred C. Brown, Nevada City, Cal.
Oroville—G. T. Graham, Sec., Oroville, Cal.
Oxnard—Roy B. Witman, Sec., Oxnard, Cal.
Paso Robles—T. W. Henry, Sec., Paso Robles, Cal.
Pescadero—C. J. Coburn, Sec., Pescadero, Cal.
Petaluma—Jos. Steiger, Sec., Petaluma, Cal.
Porterville—G. R. Lumley, Sec., Porterville, Cal.
Quincy—T. F. Spooner, Sec., Quincy, Cal.
Red Bluff—W. F. Luning, Sec., Red Bluff, Cal.
Redding—Dr. B. F. Belt, Sec., Redding, Cal.
Redlands—* * * * * Sec., Redlands, Cal.
Redwood City—C. Littlejohn, Sec., Redwood City, Cal.
Riverside—Joe Shields, Sec., Riverside, Cal.
Round Valley—H. W. Schutler, Sec., Covalo, Cal.
San Andreas—Will. A. Dower, Sec., San Andreas, Cal.
San Rafael—Mr. Robertson, Sec., San Rafael.
Santa Ana—J. W. Carlyle, Sec., Santa Ana, Cal.
Santa Barbara—E. C. Tallant, Sec., Santa Barbara, Cal.
San Bernardino—F. C. Moore, Sec., San Bernardino, Cal.
Santa Clara County—R. S. Kooser, Sec., San Jose, Cal.
Santa Cruz—Mr. Miller, Sec., Santa Cruz.
San Diego—A. D. Jordan, Sec., San Diego, Cal.
Santa Maria—L. J. Morris, Sec., Santa Maria, Cal.
Santa Rosa——— Mullen, Sec., Santa Rosa, Cal.
San Luis Obispo—H. C. Knight, Sec., San Luis Obispo, Cal.
Salinas—J. J. Kelley, Sec., Salinas, Cal.
Sanger—H. C. Coblentz, Sec., Sanger, Cal.
Selma—J. J. Vanderburg, Sec., Selma, Cal.
Siskiyou—W. A. Sharp, Sec., Sisson, Cal.
Santa Paula—Dr. R. L. Poplin, Sec., Santa Paula, Cal.
Sacramento County—A. Hertzel, Sec., Sacramento, Cal.
Sonora—J. A. Van Harlingen, Sec., Sonora, Cal.
Stockton—R. L. Quisenberry, Sec., Stockton, Cal.
Susanville—R. M. Rankin, Sec., Susanville, Cal.
Sutter Creek—L. F. Stinson, Sec., Sutter Creek, Cal.
Ukiah—Sam D. Paxton, Sec., Ukiah, Cal.
Ventura—M. E. V. Bogart, Sec., Ventura, Cal.
Visalia—Thomas A. Chatten, Sec., Visalia, Cal.
Watsonville—Ed Winkle, Sec., Watsonville, Cal.
Willitts—Chester Ware, Sec., Willitts, Call.
Woodland—W. H. Huston, Sec., Woodland, Cal.
Yreka—F. A. Autenreith, Sec., Yreka, Cal.

THE CALIFORNIA GAME LAWS IN BRIEF

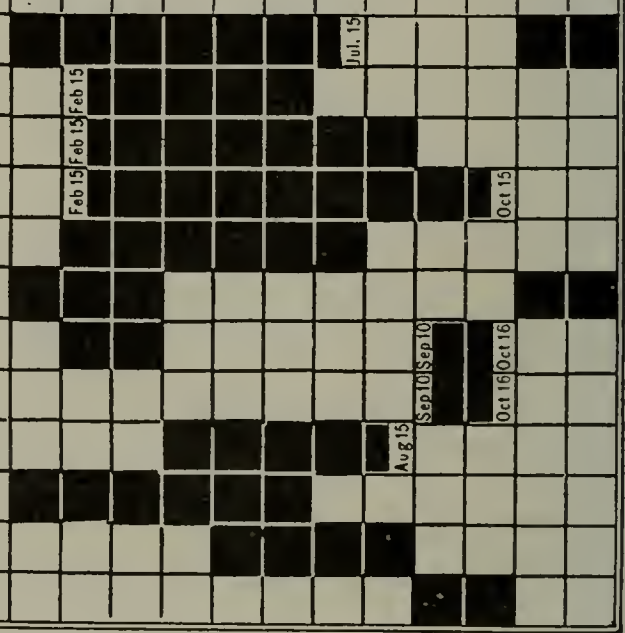
(Compiled by Charles A. Vogelsang, Chief Deputy, State Board of Fish Commissioners.)

OPEN AND CLOSE SEASONS IN CALIFORNIA, 1903-1904.

WHITE--Open Season. **BLACK--Close Season.**

BAG LIMIT

Quail, Grouse, Snipe, Curlew, Ibis, Plover, 25 *in one day.*
Doves, Ducks, - - - - - - - 50 *in one day.*
Rails, - - - - - - - - - 20 *in one day.*
Deer (male), - - - - - - - 3 *in one season.*



N. B.--In some counties the OPEN seasons are shorter
Write to County Clerk or District Attorney.

Fine for violation Game Laws, $25 to $500, and imprisonment.
Fine for violation Fish Laws, $20 to $500, and imprisonment.
Smallest fine for using explosives to take any fish, $250, and imprisonment.

WHAT IS ALWAYS UNLAWFUL

TO BUY, SELL, OFFER FOR SALE, BARTER OR TRADE, AT ANY TIME, ANY QUAIL, PHEASANT, GROUSE, SAGE HEN, IBIS, PLOVER, OR ANY DEER MEAT OR DEER SKINS.

To have in possession doe or fawn skins.
To take or kill, at any time, does, fawns, elk or antelope.
To take or kill pheasants, or Bob-White quail.
To run deer with dogs during the close season.
To shoot half-hour before sunrise, or half-hour after sunset.
To trap game of any kind without having first procured *written* authority from the Board of Fish Commissioners.
To take or destroy nests or eggs of game birds.
To ship game in concealed packages, or *without* your name and address.
To *buy* or *sell trout* less than *one-half pound* in weight.
To take, at any time, sturgeon, or female crabs.
To take abalones less than fifteen inches in circumference.
To take trout or black bass, except with hook and line.
To take salmon, shad or striped bass with a net less than seven and one-half inch mesh.
To use a set net.
To take fish, in any manner, within fifty feet of a fishway.
To take, buy, or sell striped bass less than three pounds in weight.
To shoot meadow larks.
To shoot on enclosed land without permission.

COUNTY ORDINANCES.

BY LEGISLATIVE enactment the various Boards of Supervisors have, in their respective counties, jurisdiction and power to provide, by ordinances not in conflict with the general laws of the State, for the protection of fish and game, and may shorten (but not extend) the open season for the taking and killing of fish and game within the dates fixed by the general State law.

The ordinances as published below are, so far as we can ascertain, correct; changes are, however, liable to occur from time to time, necessitated by new conditions, and we will make such corrections when they eventuate. If in any doubt, please address this office, and information will be gladly given. Where counties are not enumerated in the following list, it is to be understood that no departure from the general State law has been adopted.

El Dorado.—Male deer, September 1 to November 1; tree squirrel, August 1 to October 1; trout in Lake Tahoe and Loon Lake, June 1 to November 1.

Fresno.—Doves, August 15 to February 1; quail, November 1 to February 1; male deer, September 1 to November 1.

Humboldt.—Trout, May 1 to November 1; striped bass, closed until January 1, 1905; barnacle or black brant, October 1 to March 1; Wilson or jack snipe, September 1 to February 15; English or Mongolian pheasant and wild turkey, closed until January 1, 1906; ducks, limit of 25 per day; black sea brant, limit of 8 per day; miscellaneous bag of game birds, not to exceed 40 in number per day's shoot.

Kern.—No game to be shipped out of county.

Kings.—Doves, September 1 to February 15; quail, November 1 to February 15; deer, September 1 to November 1; black bass closed for two years; limit on ducks, 25 per day.

Lake.—Male deer, July 15 to September 15.

Los Angeles.—Doves, August 1 to September 1; male deer, July 15 to September 15; trout, May 1 to August 1.

Los Angeles—Doves, July 31 to October 1; male deer, July 15 to September 15. Gulls, terns, meadow larks, robins, flickers, brewers blackbird, road runners, orioles, mocking birds, the water ousel, the barn owl and other species of beneficial birds are protected at all times in Los Angeles County. The putting out of poison mixed with or dissolved in water for the purpose of poisoning birds or animals of any sort is forbidden.

Madera—Doves, August 15 to February 1; valley quail, November 1 to February 1; male deer, September 1 to November 1; ducks, limit 25 per day; duck selling prohibited; trout limit 10 pounds per day, size limit, 6 inches; black bass, closed for two years.

Marin.—Male deer, July 15 to September 15; doves, August 1 to February 15; quail, October 15 to January 15; tree squirrels, July 1 to February 1. Shooting on county roads prohibited. Killing of larks and other song birds prohibited.

Mendocino.—Male deer, July 15 to October 1.

Merced.—Doves, August 15 to February 15.

Monterey.—Deer, July 15 to October 1. No hounds. Sea gulls and blue cranes prohibited.

Napa.—Deer, July 15 to September 15.

Orange.—Doves, August 1 to February 15.

Riverside.—Male deer, August 1 to September 15; trout, May 1 to July 1.

San Benito.—Male deer, August 1 to October 1.

San Bernardino.—Trout, June 1 to November 1; tree squirrels, limit 5 in one day; doves, August 1 to October 1; wild duck, trout or dove selling prohibited.

San Mateo.—Cottontail and bush rabbit, July 1 to February 1; rail, October 15 to November 16. Rail hunting with boats one hour before or after high tide prohibited. Male deer, August 1 to October 1; trout, limit 100 per day; tree or pine squirrels, prohibited. Song birds protected perpetually.

Santa Barbara.—Male deer, July 15 to September 15.

Santa Clara.—Male deer, July 15 to October 1.

Santa Cruz.—Male deer, August 1 to October 1. All wild birds (other than those recognized as game birds in general law), *except* hawks, owls, bluejays, shrikes, English sparrows and house-finches, are perpetually protected, as are likewise all species of tree squirrels. Black bass cannot be caught before January 1, 1907. Trout limit in one day, 100.

Siskiyou.—Deer, August 15 to October 15.

Sonoma.—Male deer, July 15 to September 1.

Trinity—Male deer, September 15 to October 30.

Tulare.—Trout limit, 10 pounds per day, 6-inch fish; black bass, closed for two years; road-runner killing prohibited.

Tuolumne.—Mountain quail, south of ranges 13, 14, 15 and 16 east, township 3 north, and west of townships 1 and 2, north, and township 1 south range 7 east, October 15 to February 15.

Ventura.—Trout, May 1 to November 1; male deer, August 15 to October 1.

Yolo.—Doves, August 1 to February 1; quail, November 1 to January 1; deer, July 15 to September 15.

Close Seasons for Game in the United States and Canada.

(Date of close season and the first date of open season are given; to find open season, reverse dates.)

MAMMALS.

	State.	Deer.	Elk.	Moose, Caribou.	Antelope.	Squirrel.[1]	Rabbit.
NORTHERN.	Maine	Dec. 15-Oct. 1[1]		Dec. 1-Oct. 15[14]			Apr. 1-Sept. 1
	New Hampshire	At all times[2]	At all times	At all times		Jan. 1-Sept. 15	Apr. 1-Oct. 1
	Vermont	Nov. 1-Oct. 22		At all times			May 1-Sept. 1
	Massachusetts	To Nov. 1, 1903				Mar. 1-Oct. 1	Mar. 1-Oct. 1
	Rhode Island	To Feb. 1, 1905				Jan. 1-Oct. 15	Jan. 1-Oct. 15
	Connecticut	To June 1, 1911				Dec. 1-Oct. 1	Jan. 1-Oct. 1
	New York[1]	Nov. 16-Sept. 1	At all times	At all times	At all times	Dec. 1-Sept. 16	Dec. 16-Sept. 16
	Long Island	Exc'pt 4 days Nov.				Jan. 1-Nov. 1	Jan. 1-Nov. 1
	New Jersey	To April 14, 1905				Jan. 1-Nov. 10	Jan. 1-Nov. 10
	Pennsylvania	Dec. 1-Nov. 1	Dec. 1-Nov. 1			Dec. 16-Oct. 15	Dec. 16-Nov. 1
	Delaware						Jan. 1-Nov. 15
	Maryland[1]	Local laws				Dec. 1-Sept. 1	Dec. 25-Nov. 1
	Dist. Columbia	Jan. 1-Sept. 1[3]				Feb. 1-Nov. 1	Feb. 1-Nov. 1
	Virginia	Jan. 1-Oct. 1					
	West Virginia	Dec. 15-Oct. 15				Jan. 1-Sept. 15	Jan. 1-Sept. 15
	Kentucky	Mar. 1-Sept. 1				Feb. 1-June 15	
	Ohio	Dec. 16-Nov. 10				Sept. 2-Aug. 1	Dec. 2-Nov. 10
	Michigan	Dec. 1-Nov. 8[1]	To 1911	To 1911		Dec. 1-Oct. 15	
	Indiana	At all times				Jan. 1-Aug. 1[16]	
	Illinois	To 1913				Jan. 1-July 1	
	Wisconsin	Dec. 1-Nov. 11[1]				May 1-Sept. 1	May 1-Sept. 1
	Minnesota	Dec. 1-Nov. 11	At all times	Dec. 1-Nov. 11			
	Iowa	At all times	At all times			Jan. 1-Sept. 1	
	Missouri	Jan. 1-Oct. 1					
	Kansas				To Mar. 13, 1908		
	Nebraska	Nov. 16-Aug. 15	At all times		Nov. 16-Aug. 15		
	South Dakota	Dec. 15-Nov. 15	Dec. 15-Nov. 15		To Jan. 1, 1911		
	North Dakota	Dec. 1-Nov. 10	At all times	At all times	To Jan. 1, 1911		
	Montana	Dec. 1-Sept. 1	Nov. 1-Sept. 1	At all times	At all times		
	Wyoming	Nov. 15-Sept. 15	Nov. 15-Sept. 15	To Sept. 13, 1912[18]	Nov. 15-Sept. 15		
	Colorado	Oct. 1-Sept. 15	To 1907		To 1907		
SOUTHERN.	North Carolina[1]	Jan. 1-Oct. 1				Local laws	
	South Carolina	Feb. 1-Sept. 1[1]					
	Georgia[4]	Jan. 1-Sept. 1					
	Florida	Feb. 1-Nov. 1					
	Alabama[1]	Jan. 1-Sept. 1				Feb. 2-July 1	
	Mississippi	Mar. 1-Sept. 15					
	Tennessee	Dec. 15-Oct. 1				Mar. 1-June 1	
	Arkansas	Feb. 1-Sept. 1[1]					
	Louisiana	Apr. 1-Nov. 1					Apr. 1-Nov. 1
	Texas	Jan. 1-Nov. 1			To July 1, 1909		
	Oklahoma	At all times			At all times		
	New Mexico	Jan. 1-Nov. 1	To Mar. 7, 1905		To Mar. 7, 1905		
	Arizona	Nov. 1-Sept. 15	At all times		To Jan. 1, 1906		
PACIFIC.	California[1]	Nov. 1-July 15	At all times		At all times	Feb. 1-Aug. 1	
	Nevada	Nov. 15-Sept. 15	At all times	At all times[19]	Nov. 15-Sept. 15		
	Utah	Nov. 1-Sept. 1	At all times		At all times		
	Idaho	Jan. 1-Sept. 1	Jan. 1-Sept. 1	At all times	Jan. 1-Sept. 1		
	Washington	Dec. 15-Sept. 15	Nov. 1-Sept. 15	Nov. 1-Sept. 15	Nov. 1-Sept. 15		
	Oregon[1]	Nov. 1-July 15[1]	To Sept. 15, 1904	Nov. 1-July 15[1]	Nov. 15-July 15[1]	Jan. 1-Oct. 1	
	Alaska	Dec. 16-Sept. 1		Nov. 1-Sept. 1[1]			
	Hawaii						
CANADA.	British Columbia	Dec. 15-Sept. 1	Jan. 1-Sept. 1	Jan. 1-Sept. 1			Jan. 1-Sept. 1
	N.W. Territories[20]	Dec. 15-Nov. 1	Dec. 15-Nov. 1	Dec. 15-Nov. 1	Dec. 15-Nov. 1		
	Manitoba	Dec. 15-Nov. 15	Dec. 15-Nov. 15	Dec. 15-Nov. 15	Dec. 15-Nov. 15		
	Ontario	Nov. 16-Nov. 1	At all times	Nov. 16-Oct. 16[22]		Dec. 16-Sept. 15	Dec. 16-Sept. 15
	Quebec	Jan. 1-Sept. 1[1]		Jan. 1-Sept. 1[1]			Feb. 1-Nov. 1[1]
	New Brunswick	Dec. 1-Sept. 15		Dec. 1-Sept. 15[1]			
	Nova Scotia	To Oct. 1, 1905		Jan. 1-Sept. 15[1]			Feb. 1-Oct. 15
	Newfoundland		To Jan. 1, 1912	Feb. 1-Oct. 21[23]			Mar. 1-Sept. 16

BIRDS.

	State.	Quail.	Grouse.	Prairie Chicken.	Wild Turkey.
NORTHERN.	Maine	At all times	Dec. 1-Sept. 16		
	New Hampshire	Dec. 15-Sept. 15	Dec. 15-Sept. 15		
	Vermont	Jan. 1-Sept. 1	Jan. 1-Sept. 1		
	Massachusetts	Dec. 1-Oct. 1[1]	Dec. 1-Oct. 1		
	Rhode Island	Dec. 16-Oct. 15	Dec. 16-Oct. 16		
	Connecticut	Dec. 1-Oct. 1	Dec. 1-Oct. 1		
	New York[1]	Dec. 1-Nov. 1	Dec. 1-Sept. 16		
	Long Island	Jan. 1-Nov. 1	Jan. 1-Nov. 1		
	New Jersey	Jan. 1-Nov. 10	Jan. 1-Nov. 10	Jan. 1-Nov. 10	Jan. 1-Nov. 10
	Pennsylvania	Dec. 16-Oct. 15	Dec. 16-Oct. 15	Dec. 16-Oct. 15	Dec. 16-Oct. 15
	Delaware	Jan. 1-Nov. 15	Jan. 1-Nov. 15		
	Maryland[1]	Dec. 25-Nov. 1	Dec. 25-Nov. 1		Dec. 25-Nov. 1
	Dist. Columbia	Mar. 15-Nov. 1	Dec. 26-Nov. 1	Mar. 15-Sept. 1	Dec. 26-Nov. 1
	Virginia	Feb. 1-Nov. 1[26]	Feb. 1-Nov. 1[26]		Feb. 1-Nov. 1[26]
	West Virginia	Dec. 20-Nov. 1	Dec. 15-Oct. 15	Dec. 15-Oct. 15	Dec. 15-Oct. 15
	Kentucky	Jan. 1-Nov. 15	Jan. 1-Nov. 15		Feb. 1-Sept. 1
	Ohio	Dec. 2-Nov. 10	To Nov. 10, 1904	To Nov. 10, 1904	Dec. 2-Nov. 10
	Michigan	Dec. 1-Oct. 20[19]	Dec. 1-Oct. 20[19]	To 1910	To 1910
	Indiana	Jan. 1-Nov. 10	Jan. 1-Nov. 10	Jan. 1-Nov. 10	At all times
	Illinois	Dec. 20-Nov. 10	To 1907	To 1907	To 1908
	Wisconsin	To Sept. 1, 1905	Dec. 1-Sept. 1[1]	Dec. 1-Sept. 1[1]	
	Minnesota	Dec. 15-Oct. 15	Dec. 15-Oct. 15	Nov. 1-Sept. 1	
	Iowa	Jan. 1-Nov. 1	Jan. 1-Nov. 1	Dec. 1-Sept. 1	Jan. 1-Nov. 1
	Missouri	Jan. 1-Nov. 1	Jan. 1-Nov. 1	Jan. 1-Nov. 1	Jan. 1-Nov. 1
	Kansas	Jan. 1-Nov. 15[31]	Oct. 1-Aug. 15	Oct. 1-Aug. 15[31]	
	Nebraska	Dec. 1-Nov. 1	Dec. 1-Oct. 1	Dec. 1-Oct. 1	At all times
	South Dakota	Jan. 1-Sept. 1	Jan. 1-Sept. 1	Jan. 1-Sept. 1	
	North Dakota	To Sept. 1, 1905	Oct. 15-Sept. 1	Oct. 15-Sept. 1	
	Montana	At all times	Dec. 1-Aug. 15	Dec. 1-Aug. 15	
	Wyoming	At all times	Dec. 1-Sept. 1	Dec. 1-Sept. 1	
	Colorado	To Oct. 1, 1920[32]	Oct. 21-Sept. 1	Oct. 21-Sept. 1	To 1907
SOUTHERN.	North Carolina[1]	Mar. 15-Nov. 1			Mar. 15-Nov. 1
	South Carolina	Apr. 1-Nov. 1	Apr. 1-Nov. 1		Apr. 1-Nov. 1
	Georgia[4]	Feb. 1-Nov. 1[33]	Mar. 15-Nov. 1		Mar. 15-Nov. 1
	Florida	Mar. 1-Nov. 1			Mar. 1-Nov. 1
	Alabama	Mar. 2-Nov. 15	Mar. 2-Nov. 15	Mar. 2-Nov. 15	Mar. 2-Nov. 15
	Mississippi	May 1-Oct. 1			May 1-Oct. 1
	Tennessee	Mar. 1-Nov. 1	Mar. 1-Nov. 1		Mar. 1. Nov. 1
	Arkansas	Feb. 15-Nov. 1[1]		Dec. 1-Oct. 31	May 1-Sept. 1
	Louisiana	Apr. 1-Nov. 1	Mar. 1. Nov. 1	Mar. 1-Nov. 1	Apr. 1-Nov. 1
	Texas	Feb. 1-Nov. 1		Feb. 1-Nov. 1	Feb. 1-Nov. 1
	Oklahoma	Feb. 1-Oct. 15	At all times	Jan. 1-Sept. 1	Jan. 1-Sept. 1
	New Mexico	Mar. 1-Oct. 1	Jan. 1-Oct. 1	Jan. 1-Oct. 1	Jan. 1-Oct. 1
	Arizona	Mar. 1-Oct. 15	Mar. 1-Oct. 15		Nov. 1-Sept. 15
PACIFIC.	California[1]	Feb. 15-Oct. 15[3]	Feb. 15-Sept. 1		
	Nevada	Mar. 1-Sept. 15	Mar. 1-Sept. 15	Mar. 1-Sept. 15	
	Utah	At all times[1]	Dec. 1-Aug. 15	Dec. 1-Aug. 15	
	Idaho	Dec. 1-Nov. 1	Dec. 1-Aug. 15	Dec. 1-Aug. 15	
	Washington	Jan. 1-Oct. 1[34]	Jan. 1-Sept. 1	Jan. 1-Sept. 1[1]	
	Oregon[1]	Dec. 1-Oct. 1	Dec. 1-Oct. 1	Dec. 1-Oct. 1	To Oct. 1, 1905
	Alaska	Dec. 10-Sept. 1	Dec. 10-Sept. 1		
	Hawaii	Mar. 1-Sept. 16			
CANADA.	British Columbia	At all times	Jan. 1-Sept. 1	Jan. 1-Sept. 1	
	N.W. Territories[20]	Dec. 15-Sept. 15	Dec. 15-Sept. 15	Dec. 15-Sept. 15	
	Manitoba	Jan. 1-Aug. 1	Nov. 15-Sept. 15	Nov. 15-Sept. 15	
	Ontario	Dec. 1-Nov. 1	Dec. 16-Sept. 15	To Sept. 15, 1905	Dec. 1-Nov. 1
	Quebec		Dec. 15-Sept. 1[1]		
	New Brunswick		To May 6, 1905		
	Nova Scotia	Feb. 1-Oct. 15	Dec. 1-Oct. 1[1]		
	Newfoundland	Mar. 1-Sept. 16	Jan. 12-Sept. 16		

BIRDS.

	State.	Dove.	Introduced Pheasant.	Plover.	Snipe.	Woodcock.	Rail.	Duck.	Goose, Swan.
NORTHERN.	Maine	At all times	To Mar. 22, 1911	May 1-Aug. 1	May 1-Aug. 1	Dec. 1-Sept. 15		Dec. 1-Sept. 1[8]	
	New Hampshire	At all times	To Sept. 15, 1905	Feb. 1-Aug. 1[1]	Dec. 15-Sept. 15[1]	Dec. 15-Sept. 15	Feb. 1-Aug. 1	Feb. 1-Aug. 1[8]	
	Vermont	At all times	Nov. 20-Oct. 1	Jan. 1-Sept. 1[1]	Jan. 1-Sept. 1	Jan. 1-Sept. 1		Jan. 1-Sept. 1	Jan. 1-Sept. 1[16]
	Massachusetts	At all times	To Feb. 15, 1905	Mar. 1-July 15	Mar. 1-July 15	Dec. 1-Oct. 1	Mar. 1-July 15	Mar. 1-Sept. 1[8]	
	Rhode Island	At all times	To Oct. 1, 1905			Dec. 16-Oct. 15		Apr. 1-Aug. 15[1]	
	Connecticut	At all times	To June 1, 1906	Apr. 1-Sept. 1	May 1-Aug. 1	Dec. 1-Oct. 1	Apr. 1-Sept. 1[1]	May 1-Sept. 1	May 1-Sept. 1
	New York[1]	At all times	To 1905	May 1-Sept. 1	May 1-Sept. 1	Dec. 1-Sept. 16	May 1-Sept. 1	Jan. 1-Sept. 16	Jan. 1-Sept. 16
	Long Island	At all times	Jan. 1-Nov. 1[1]	Jan. 1-July 1	Jan. 1-July 1	Jan. 1-Aug. 1	Jan. 1-July 1	Jan. 1-Oct. 1	Jan. 1-Oct. 1
	New Jersey	At all times	Jan. 1-Nov. 10	Jan. 1-July 15[1]	Jan. 1-Sept. 1	Jan. 1-Oct. 1[4]	Jan. 1-Sept. 1	May 1-Oct. 1	May 1-Oct. 1
	Pennsylvania		Dec. 16-Oct. 15	Jan. 1-July 15[8]		Dec. 16-Oct. 15[1]	Dec. 1-Sept. 1	May 1-Sept. 1	May 1-Sept. 1
	Delaware	At all times					Feb. 1-Sept. 1	Apr. 15-Oct. 1[8]	Apr. 15-Oct. 1
	Maryland[1]	Dec. 25-Aug. 15	Dec. 25-Nov. 1	May 1-Aug. 15	May 1-Aug. 15	Dec. 25-Nov. 1[8]	Nov. 1-Sept. 1	Apr. 10-Nov. 1	Apr. 10-Nov. 1
	Dist. Columbia	At all times		Apr. 1-Sept. 1	Apr. 1-Sept. 1	Jan. 1-July 1	Feb. 1-Sept. 1	Apr. 1-Sept. 1[8]	Apr. 1-Sept. 1[8]
	Virginia	At all times	Local laws	Jan. 1-July 20	Jan. 1-July 20	Feb. 1-Nov. 1[26]	Jan. 1-July 20[26]	Apr. 1-Oct. 15	Apr. 1-Oct. 15
	West Virginia	At all times			July 1-Mar. 1	Nov. 2-July 15		Apr. 1-Oct. 1	Apr. 1-Oct. 1[16]
	Kentucky	Feb. 1-Aug. 1				Feb. 1-June 20		Apr. 1-Aug. 15	Apr. 1-Aug. 15[16]
	Ohio	At all times	To Nov. 10, 1904	Dec. 2-Nov. 10[11]	Dec. 2-Nov. 10[11]	Sept. 2-Aug. 1	Dec. 2-Nov. 10[11]	Dec. 16-Sept. 1[8]	Dec. 16-Sept. 1[8]
	Michigan	At all times	To 1910	Dec. 1-Oct. 1	Dec. 1-Oct. 1[19]	Dec. 1-Oct. 20[19]		Dec. 1-Oct. 1[19]	Dec. 1-Oct. 1[19]
	Indiana	At all times	At all times			Jan. 1-Nov. 10[10]		Apr. 15-Sept. 1[10]	Apr. 15-Sept. 1[10]
	Illinois	Dec. 1-Aug. 1	To 1908	May 1-Sept. 1	May 1-Sept. 1	Dec. 1-Aug. 1		Apr. 15-Sept. 1	Apr. 15-Sept. 1
	Wisconsin	At all times	To Sept. 1, 1905[1]	Dec. 1-Sept. 1	Dec. 1-Sept. 1	Dec. 1-Sept. 1		Jan. 1-Sept. 1[10]	May 1-Sept. 1[10]
	Minnesota	Nov. 1-Sept. 1	At all times	Nov. 1-Sept. 1[1]	Nov. 1-Sept. 1	Nov. 1-Sept. 1		Dec. 1-Sept. 1	Dec. 1-Sept. 1
	Iowa	At all times		Apr. 15-Sept. 1	Apr. 15-Sept. 1	Jan. 1-July 10	Apr. 15-Sept. 1	Apr. 15-Sept. 1	Apr. 15-Sept. 1[10]
	Missouri	Jan. 1-Aug. 1	Jan. 1-Nov. 1	Jan. 1-Aug. 1		Jan. 1-Aug. 1		Apr. 1-Oct. 1	
	Kansas	Sept. 15-Aug. 1	To Feb. 28, 1907	Sept. 15-July 15				Apr. 25-Sept. 1[10]	Apr. 25-Sept. 1[10]
	Nebraska	Oct. 31-Apr. 15	At all times	Oct. 31-Apr. 15	Apr. 16-Sept. 1			Apr. 16-Sept. 1	Apr. 16-Sept. 1
	South Dakota			May 15-Sept. 1		Jan. 1-Sept. 1		May 1-Sept. 1[10]	May 1-Sept. 1[10]
	North Dakota		To Sept. 1, 1905			Oct. 15-Sept. 1		May 1-Sept. 1[10]	May 1-Sept. 1[10]
	Montana	At all times	At all times					Jan. 1-Sept. 1	Jan. 1-Sept. 1
	Wyoming	At all times	To Sept. 1, 1906	May 1-Sept. 1	May 1-Sept. 1		May 1-Sept. 1	May 1-Sept. 1	May 1-Sept. 1[10]
	Colorado	Sept. 1-Aug. 1	At all times		Apr. 16-Sept. 10[2]			Apr. 16-Sept. 10[2]	Apr. 16-Sept. 10[2]
SOUTHERN.	North Carolina[1]	Mar. 15-Nov. 1			Local laws	Local laws		Local laws	Local laws
	South Carolina	Mar. 1-Aug. 1	To Dec. 22, 1904			Apr. 1-Nov. 1			
	Georgia[4]	Mar. 15-Aug. 15	To Nov. 30, 1905					Feb. 1-Sept. 1[1]	
	Florida							Apr. 1-Oct. 15	
	Alabama	Mar. 1-Aug. 1	To Feb. 8, 1904			Mar. 2-Nov. 15			
	Mississippi	Mar. 1-Sept. 15							
	Tennessee	Mar. 1-Aug. 1	Jan. 1-Dec. 1	Apr. 15-Oct. 1	Apr. 15-Oct. 1	Apr. 15-Oct. 1	Apr. 15-Oct. 1	Apr. 15-Oct. 1[8]	Apr. 15-Oct. 1
	Arkansas	At all times							
	Louisiana	Mar. 1-July 1		Oct. 1-Aug. 1[8]				Apr. 1-Sept. 1	
	Texas	Feb. 1-Sept. 1	To July 1, 1909						
	Oklahoma	Jan. 1-Aug. 1	To Jan. 1, 1904	Jan. 1-Aug. 1					
	New Mexico		To Mar. 11, 1906						
	Arizona		Mar. 1-Oct. 15		Mar. 1-Oct. 15		Mar. 1-Oct. 15		
PACIFIC.	California[1]	Feb. 15-July 1	At all times	Feb. 15-Oct. 15			Feb. 15-Oct. 15	Feb. 15-Oct. 15	
	Nevada	Nov. 2-July 15	To Sept. 1, 1906	Mar. 1-Sept. 15	Mar. 1-Sept. 15	Mar. 1-Sept. 15		Mar. 1-Sept. 15	Mar. 16-Sept. 15
	Utah	Dec. 1-Aug. 15	At all times		Mar. 15-Feb. 15[28]			Mar. 15-Feb. 15[28]	Mar. 15-Feb. 15[28]
	Idaho	July 15-Feb. 15	To Mar. 11, 1907	July 15-Feb. 15	July 15-Feb. 15			Feb. 15-Sept. 15	Feb. 15-Sept. 15
	Washington	At all times	To Oct. 15, 1906[1]	Mar. 1-Aug. 15	Mar. 1-Sept. 1		Mar. 1-Aug. 15	Mar. 1-Sept. 1	Mar. 1-Sept. 1
	Oregon	At all times	To Oct. 1, 1905[1]	Jan. 1-Aug. 1[8]		To Oct. 1, 1905	Jan. 1-Aug. 1	Mar. 1-Sept. 1[8]	Mar. 1-Sept. 1[8]
	Alaska	At all times		Dec. 16-Sept. 1	Dec. 16-Sept. 1			Dec. 16-Sept. 1	Dec. 16-Sept. 1
	Hawaii	Feb. 1-July 1	To 1907	May 1-Sept. 16[1]	May 1-Sept. 16			Feb. 1-Sept. 16[8]	Feb. 1-Sept. 16
CANADA.	British Columbia		At all times	Mar. 1-Sept. 1				Mar. 1-Sept. 1	
	N.W. Territories				May 5-Aug. 23			May 5-Aug. 23[8]	
	Manitoba	At all times		Jan. 1-Aug. 1[8]	Jan. 1-Aug. 1	Jan. 1-Aug. 1		Jan. 1-Sept. 1	
	Ontario		To Sept. 15, 1905	Dec. 16-Sept. 15	Dec. 16-Sept. 15	Dec. 16-Sept. 15	Dec. 16-Sept. 15	Dec. 16-Sept. 15[8]	May 1-Sept. 15
	Quebec			Feb. 1-Sept. 1	Feb. 1-Sept. 1	Feb. 1-Sept. 1		Mar. 1-Sept. 1[8]	
	New Brunswick		At all times		Dec. 2-Sept. 1	Dec. 2-Sept. 1		Dec. 2-Sept. 1[8]	Dec. 2-Sept. 1[16]
	Nova Scotia		At all times		Mar. 1-Sept. 1[1]	Mar. 1-Sept. 1[1]		Mar. 1-Sept. 1[1]	
	Newfoundland			Jan. 12-Aug. 21	Jan. 12-Aug. 21			Jan. 12-Aug. 21[8]	Jan. 12-Aug. 21[8]

PROTECTED IN A FEW STATES ONLY.

	Ptarmigan.	Sage Hen.	Reedbird.	Curlew.	Crane.
Colorado	At all times				
Washington	Jan. 1-Sept. 1[1]				
Alaska	Dec. 16-Sept. 1				
Quebec	Feb. 1-Nov. 1				
Nova Scotia	At all times				
Newfoundland	Jan. 12-Sept. 16				
Nebraska		Dec. 1-Oct. 1			Apr. 16-Sept. 1
Montana		Dec. 15-Aug. 1			May 1-Sept. 1
Alaska		Dec. 16-Sept. 1			North Dakota May 1-Sept. 1
Wyoming		Oct. 15-July 15			Colorado Apr. 16-Sept. 10[2]
Colorado		Oct. 21-Sept. 1			Nevada Mar. 1-Sept. 15
California		Feb. 15-Sept. 1			Washington Mar. 1-Sept. 1
Nevada		Feb. 15-July 15			
Utah		Dec. 1-Aug. 15			
Idaho		Dec. 1-July 15			
Washington		Jan. 1-Sept. 1[1]			
New Jersey			Jan. 1-Sept. 1		
Pennsylvania			Dec. 1-Sept. 1		
Delaware			Feb. 1-Aug. 25		
Maryland			Nov. 1-Sept. 1[1]		
Dist. Columbia			Feb. 1-Sept. 1		
New Jersey				Jan. 1-Sept. 1	
Pennsylvania				Dec. 1-Sept. 1	
Delaware				Feb. 1-Aug. 25	
Maryland				Nov. 1-Sept. 1[1]	
Dist. Columbia				Feb. 1-Sept. 1	
New Jersey					Jan. 1-July 15
New York					Feb. 1-Sept. 1[1]
Virginia					Jan. 1-July 20
South Dakota					May 15-Sept. 1
Nebraska					At all times
Wyoming					May 1-Sept. 1
Colorado					Apr. 16-Sept. 10[2]
Tennessee					Apr. 15-Oct. 15
California					Feb. 15-Oct. 15
Nevada					Mar. 1-Sept. 15
Hawaii					May 1-Sept. 16
Quebec					Feb. 1-Sept. 1
Newfoundland					Jan. 12-Aug. 21

[1] Certain local exceptions. [2] Certain species. [3] Except month of July. [4] Except Mar. 15-Apr. 21. [5] Except month of April. [6] Sale. [7] Except month of March. [8] Upland plover only. [9] Altitudes above 7,000 feet, May 1-Sept. 15. [10] Except unorganized Territories in which the seasons are as follows: Deer, elk, caribou, mountain sheep, mountain goat, Apr. 1-July 15 and Oct. 1-Dec. 1; musk ox, Mar. 20-Oct. 15; grouse, prairie chicken, Jan. 1-Sept. 1; duck, goose, swan, Jan. 15-Sept. 1. [11] Except July 16-Oct. 1. [12] Also Oct. 1-Nov. 10, unless permit be obtained. [13] Except certain species, Mar. 2-Apr. 11. [14] Caribou protected in Maine to Oct. 15, 1905. [15] Moose only. [16] Doves only. [17] Except North Dakota, to Sept. 1, 1905; Nevada, Wisconsin, and Wyoming at all times. [18] Caribou only. [19] Under the old law, which still stands. [20] Except Aug. 1-Oct. 1, caribou only, moose protected to Jan. 1, 1912. [21] Except Mar. 10-Apr. 21. [22] Except south of Canadian Pacific R. R. between Mattawa and Port Arthur, Nov. 16-Nov. 1. [23] Except crested quail, to 1907. [24] Except sora. [25] Except July, Aug., and Sept. [26] Except Oct. 1-Dec. 15. [27] Except April 10-25. [28] Caribou protected in Nova Scotia to Oct. 1, 1905. [29] Swan only. [30] Except west of Blue Ridge, Jan. 1-Nov. 1. [31] To twenty counties to Mar. 18, 1906. [32] Except wood duck, Mar. 1-Aug. 1.

[1] Law in full not yet received.

ABOUT BEES.

By Lawrence Irwell.

A GREAT deal has been written about bees and their habits, but there are numerous facts which are known to few persons who are neither bee-keepers nor naturalists, in which term entomologists are, of course, included.

The process of swarming is simply the departure of four or five thousand bees from a hive containing from forty to fifty thousands at a time when food is abundant and when the parent hive is overcrowded. The swarm is always accompanied by a queen. It is a common thing for bees to look around and fix upon a place of future abode before leaving their habitation; but nevertheless in the excitement of swarming all previous observation seems to be forgotten, and, allowing themselves to be easily captured, they, in the most docile manner, enter a hive prepared for them. Swarming sometimes takes place without any previous preparation, and bees have been known to remain for a number of days on the high branch of a tree, without shelter from the weather.

Why it is that at certain times some half-dozen bees will take the lead, assume the mastery and be obeyed by the whole hive is not known. Some bees having traveled four hundred miles on a train reached a bee-keeper's house. Almost at once their new owner observed the officious individuals at work. The hive had been prepared and fitted with frames of comb, partly empty and partly full of honey, and the attendant sat down to lift the bees from their box with a spoon—a long one, as might be expected. This slow method, by its quietness and simplicity, has been found rapid in the end, and it is a sure way of observing the actions of the queen. When the first spoonful was laid gently down at the hive door many of the little insects showed that they were pleased. Being hungry and scenting the abundance within, they went in to eat. The operation proceeded till nearly all the bees were inside, when an outward movement began. The bee-keeper applied smoke; but it was of no avail. Two leaders ran over the other bees, making their peculiar buzzing sound, and were obeyed. No doubt others were at work inside, and the whole mass of bees left the honey, came out, and rose in the air as is done at swarming time, although it was October and late in the afternoon—almost dark. When they alighted and clustered, they were forced into a swarming box, and shaken into a hive which was then closed. The leaders, as a consequence of this procedure, lost their power, and the next morning a happy family was at work.

One naturally asks who are these leaders who control the movements of many thousands of peacefully disposed citizens, and even deprive the hungry of their food? Are they appointed by the queen, or by the general vote of the hive—or are they self-constituted officials? They are certainly strong-willed fellows, who have the faculty of influencing others, for those entering the hive turned at their bidding, and those feasting on the opened honeycomb left it at their command. In this instance at any rate their rule was certainly as much against the interests of the community as it was against the wish of the owner of the bees.

This rule and guidance on the part of a few goes on continually in the operation of the hive. Some bees evidently communicate their commands to their fellows. When a hive gets too hot, a number of workers are sent outside, and these will stay out and perish in the rain rather than go inside for shelter before

they receive an order to do so. When, in a case of this kind, the hive-door is opened by the keeper to let in air, out come two or three of these bosses, who walk over the clustering bees, bend down their heads among them, and flutter their wings. At once, some of the bees outside free themselves from the crowd and go into the hive. This is likely to continue till one-half of those outside are allowed inside, or till all outsiders have entered. Nor will those ordered out of the hive in this way on a warm day, when the workers are busy gathering honey in the fields, go and work. They remain around the sides of the hive or under it, as if waiting for the command to enter whenever they may be needed to keep up the temperature.

During August, when the heat is often intense, and the air quite still about the hives, many bees come out and spread themselves over the tops and sides of their home. The combs at this time are liable to become soft with the warmth, and may threaten to fall. The bee-keeper then raises the hives gently and props them up from the floor in order to admit air. Although the scent of clover may be very marked, the bees outside will not join their fellow-workers in improving the shining-hour by gathering the honey; they wait till the hive is cooled and then go in. Can this spreading as a thin layer over the top and sides of the hives have in it the idea of forming a shade from the sun, and in that way reducing the heat, while hundreds are making the most violent effort to create a current of air by the rapid motion of their wings?

Every movement in the working of the hive seems to have a purpose in it, and it seems to be under the guidance of overseers, who at one time are walking about in the most leisurely way, and at other times are in such a desperate hurry and are making such frantic efforts that life and death seem to hang on the rapid discharge of duty. The queen is, of course, the one mother of the hive, but it is not probable that she takes any active supervision of its affairs. Her movements both inside and outside the hive have been watched by many investigators, but not one of them professes to have seen anything approaching supervision on her part; on the other hand, she herself is continually followed and taken care of by a company of workers. She appears to be a generally helpless creature who easily loses her way when she ventures out of doors, and cannot or will not even feed herself. Yet there is rule and authority, and obedience and power of communicating purpose within the hive. Some day perhaps we may discover a key to bee-language that will enable us to decipher the secrets of this wonderful organization.

There are times when it seems as if the bees, like many other workers, only follow "the rule of thumb" in their operations. They build beautiful combs, and if a number of broken pieces of comb are loosely placed together, tied with a string and thrown into the hive, they will do splendid work in joining them and repairing the broken parts, but if a round hole be made in the middle of the comb, they never put a patch upon it nor mend it by any process. They will shave away the cells and round the edges; but the hole remains. It would be rash, however, to conclude that bees have comparatively little intelligence for use in an emergency. When the early summer is cold and wet, and food is scarce, the worker bees do not venture far away from the hive in search of it. Indeed, garden or yard flowers have to be for a time the chief source of supply of pollen and of honey. Where the long-spurred aquilegia (often called Columbine) flourishes, in spite of the dampness, the bumble bee with its long trunk can reach the honey-drop secreted at the end of the long spur, in many cases over two inches in length; but the hive-bee, in its time of need, cannot do this. However, having ascertained that the honey-drop is there, and having failed to reach it by the open door, the resourceful bee becomes a housebreaker, bites a hole in the end of the spur, and steals the nectar. All the columbine blossoms, if examined, will show a hole in the spur. But when the early summer is fine and rich in flowers, the columbine flowers will not be tampered with by the bees. These facts prove that bees can make good use of their intellects when occasion demands it.

When bees are pinched for food, they are careful searchers for it and quickly find it, if at all within their reach. When honey is scarce, if syrup in vessels is placed near to their hive every day at the

same hour, a few bees may be seen on the lookout for it a little before the usual time, and if the weather is cold, they come singly and quickly from the hive and return at once. Ten minutes after the food is placed at the usual spot, the vessel will be crowded, and two pints of syrup will disappear very quickly. If honey is plentiful in the fields, however, the bees pay very little attention to artificial food of any sort.

Circumstances have much to do with the intelligence and the morals of bees. In spring when there are hundreds of mouths to be fed and stores are getting low, they begin to show a wonderful interest in their neighbors' pantries, and they are anxious to invade them. Again, in autumn, with the long winter before them, and a scantily filled house, they make desperate efforts to increase supplies. At such times they will slip in and steal from a neighboring hive on the sly at the risk of a broken leg or wing or a general mauling; or they may play the part of a gang of robbers and make a regular fight for food, killing or being killed according to circumstances. In ordinary times, however, one may see scores of bees gathering food side by side and nothing but honest and honorable work going on.

When honey is abundant the bees get quite careless about it. As an experiment little boxes with a bit of guide comb in them have been placed outside a hive near the entrance door, and it has been found that bees enter these boxes at once and begin to store honey in them. In making experiments with bees the particular season, the numerical strength of the hive, the stores laid in, the age of the queen and the number of young being reared are all elements which should be taken into account. On a bright summer day, when there is the pleasant hum of plenty of work and good pay for it, the hive may be opened and examined while the bees quietly continue their labor. The wax-makers, clinging to each others' feet, hang in their rows undisturbed, and the comb-builders may be seen moving over them and gathering up the scales of wax as they are formed and carrying them off. At such a time the bees will walk over the hand or rest on the face in the most friendly way. Upon the other hand on an autumn evening, when the honey season is quickly closing and winter preparations are being pushed on, if one drops even a very light object—a dead moth, for example—near the hive door, or if one makes there the faintest scratching with a straw, a score of furious guards will rush out ready to destroy any interloper. So excited do the workers become at this time that they take no pains to distinguish the hand that feeds them from the hands of an enemy. If their stock of food is low and one feeds the bees every day for a month in order that they may save their winter supply, they are as ready to sting the person who brings the food on the last day as on the first.

The power to sting is an interesting characteristic of bees. Among many forms of life, where there are males and fully developed females only, the male is very often the stronger, is the fighting animal, and is better furnished with weapons of attack and defense than the female. The male bee is unquestionably the large and stout member of the hive; but he is a gentle and good-natured creature, is not a fighter and has no sting. A baby may play with him with impunity. To see him fly around when the sun shines and listen to the deep-toned sound which he makes would lead one to suppose that he was an important person. As almost everybody knows, this is not the case, for he does no work, he returns to the hive very quickly if a cloud covers the sky, and he never attempts to defend himself when attacked. For all purposes of nature a score of drones would be more than enough for the needs of each hive, and yet thousands are often reared, only to be killed in the most cruel way before they have lived two months.

The prodigality and ruthlessness of nature are here painfully illustrated. As soon as the honey season begins to fail and food for storing becomes scarce in the fields the bees determine to send out no more swarms and to be content with what queens they have. This means that the males are no longer required. If the workers have been rearing young queens, they tear the royal babies out of the cells, suck the juice out of their bodies and throw the empty skins near the entrance. The baby boys are treated in the same way, and dozens of the fat, white grubs may be seen actually flung outside the hive. Then an attack is made on all the full-grown

males, and a dozen colonies standing side by side may be observed beginning the attack on the same day. The small worker-bees seize the drones by the wings and by the legs, mount on their backs and try to sting them, bite them and harass them till they are glad to escape by flight from their home. Having no place of refuge except the hive, they soon return, only to experience the same treatment, till, wearied out, they drop down to die. Three small workers may be seen holding on to a single male until one of them manages to sting him; and although he may fly away, paralysis and death soon overtake him. At other times the workers chase the drones as a shepherd dog does a flock of sheep, gathering them together from every corner into a compact mass and, surrounding them, prevent them from reaching any food, force them steadily toward the door, push them outside in the evening and keep them out to be chilled by the cold—and so perish.

"Do bees feel pain?" is a question often asked. If a worker-bee should by chance drive its sting into the firm part of the back or into the head of the male, it can not withdraw its weapon, and in the efforts to do so it will turn around many times. But the sting remains in the drone, and the twisting motion wrenches it from the body of the worker and gradually draws out its entrails, although the little insect goes on with its ments as if unaware of what is place. In such a case the use of the sting causes the death of its owner. It is different when the sting is used on another worker, for then the slightest prick seems to be enough to kill. The stung bee becomes paralyzed at once; it curls up and dies.

In contrast with the drone stands the queen and her life. The queen, it is almost unnecessary to say, is the only perfectly developed female in the hive, and there is only one permanently in each hive. She may live and reign for five years. Only once in her life she knows love, and out of a thousand suitors one only touches her, and immediately dies, while she is rendered fertile for life. Year by year she will lay thousands of female eggs in small cells, in which the insects can never grow to maturity, and thousands of male eggs in larger cells, to be raised for their short-lived existence and violent death. If a queen is to be reared in a hive the worker-bees must build special cells of larger size, and lifting an egg out of the small worker-cells they must place it in the queen cell, and nourish its grub there on special, highly-nitrogenous food, known as "royal jelly." Only in this complicated way and by this particular process can a female bee be brought to maturity to be constituted queen and become the mother of a new race. This perfect female is not so bulky in body as the male, but is longer and more graceful in form. She has a sting—long, curved and powerful. The only creature that seems to arouse her anger and compel her to use the sting is a perfect female like herself—a queen. When two royal ladies meet, if they are not prevented by their followers, they at once engage in mortal combat. No queen appears to use her weapon on workers or drones. She may be caught by any bee-keeper and handled without danger, provided her worker custodians can be restrained.

In a hive of some forty thousand bees busy at work on a summer day there will be one female and about twenty-five hundred males. All the remainder are worker bees, who alone attend to all the active duties of the hive. They are small, imperfectly formed females, who live only to labor, to struggle and to die. It takes three weeks from the laying of the egg till these imperfect females are hatched, but the perfect female—the queen—is hatched in two weeks. The workers are the bees that sting, the defenders of the hive from enemies, as well as its providers of food. Their short, straight sting, with its bag of poison at the base, is a ready and effective weapon. A bee may dart from the hive at one's face—it usually comes very near the eye—and before a hand can be raised the sting is felt. In firm tissue, like that of man, the sting remains, torn from the body of the bee, so that the use of its weapon of defense means death. The same thing may occur, as has been mentioned, as a part of the ordinary working of the hive in the killing of the drones and in defending the hive from common intruders, such as mice. Many bees die in this way.

A well-known bee-keeper, on a winter's day in a severe snowstorm, went to examine his hive doors to make sure that the drifted snow was not getting too freely into the hives. The door of one hive had been left rather wide open, and the presumption was

that there might be a mouse inside. The wind was so strong that it was impossible to lift the hive to look in. Very soon all the hives were covered with snow; but the next day the hive which was suspected of harboring a mouse was dug out to verify the owner's suspicions. The warmth under the snow had made the bees active; they had found their enemy, and he was there, stung to death. In every part of his body, from nose to tail, there were stings. Even his ears contained them. On his tail alone were twenty.

The bee and its ways are full of mystery. What can be the impelling motive in the life of the workers? They gather the food, build the combs, nurse the young, defend the hive and keep it scrupulously clean. So hard is their work in the summer that about six weeks is the duration of their lives. Their wings are worn to shreads by continuous use, till they fail to bear up their owner, who falls to the ground and perishes. They never know conjugal love, and all their toil and care are for the children of another. Nor do they show any affection for each other. If food is scarce, they remorselessly drag the young out of the cells and kill them, as has been already explained; they carry their dead or dying neighbors to the hive door and drop them outside; and yet, while actually starving themselves, they will gather around the queen and with their trunks feeds her with the last drop of honey in their sacks. One wonders by what strange process of nature such a state of things can have been brought about—so much imperfection in so perfect an organization, such devotion to the life of the one perfect female in the hive, and such cruelty to the males—and that on the part of creatures who know neither love nor the jealousy, affection and hate that spring from it. There may, of course, have been a period long long ago when all the workers were fully developed females, and this hypothesis may account for the superabundance of drones; but it explains nothing else.

CURIOUS FACTS CONCERNING THE OPOSSUM.

By Mrs. H. S. Shreve.

EVERY one knows that "'possum have the sweetest meat," and some know a great many curious facts regarding these quaint little animals; but few persons, indeed, can tell how the little baby opossums are brought into this world, and this is quite too important an item to be omitted from one knowledge of zoological facts.

The Encyclopædia Brittanica will tell you that "the opossum produces from six to sixteen young ones in the spring, which are placed, immediately after birth, in her pouch, and there they remain until they are able to take care of themselves." It also states that the period of gestation is from fourteen to seventeen days, which, begging the Encyclopædia's pardon, is a mistake.

The opossum belongs to what is known as the Marsupials, or pouched, animal family. They are found throughout the greater part of America from the United States to Patagonia. Especially are they plentiful in the Southern States. They are considered by some hunters to be the most cunning of all game animals. Consequently, they are among the hardest to capture. Dogs are trained especially for this sport, and, to a negro, a dog that has fully mastered the art of "treeing" is valued quite as much by the owner as is a steel corporation by Andrew Carnegie.

The opossum is not as prolific as the Encyclopædia has given it credit for, and the period of gestation is much longer—correctly given as eight weeks. The pouch, which is the baby opossum's home, is an outer skin, covered with very much finer hair than that of the other parts of the body of the animal. It is found between the hind legs and extends up toward the stomach about seven inches. It entirely covers the six teats of the udder and is lined with the finest down. It is in this most

appropriately appointed place that the baby opossum first makes his mysterious appearance. Upon the end of each teat, a tiny white "bud" about the size of the head of a pin appears. It is hard, devoid of shape, and absolutely lifeless. It remains in this state for fourteen days, then there is a slight increase in size and the coloring is now of a pinkish hue. From the fourteenth to the twenty-eighth day there is to the naked eye scarcely any change; but from that time until the forty-first day, there is a rapid change in both size and shape—in fact it is then almost entirely developed and is of a dark reddish hue. The remaining time, varying from fourteen to sixteen and eighteen days, is taken up in the perfecting of the little animals, whose development throughout is, indeed, a most interesting study. Each day they seem to cling closer to that which is giving them life, and it is hard to realize that they are really "detachable." At the appointed time they drop off and then greatly resemble new-born mice, being about of the same size and having the same red smooth skin. They are more backward than most animals, and not until they are more than two months old are they considered by their mother to be self-supporting. After they have reached that age the doors of the home that gave them birth are closed to them, and they go out to take their places in the opossum world. They soon learn the art of making their own living at the expense of others—a vocation which, however, is not confined to the opossum family and is none the less to be condemned.

Geo. Gignac, Photo. MINAM SLOPES.

Conducted by A. T. NOE, M. D.

IN THE last issue I completed a series of physical exercises which I sincerely hope have proved beneficial to those who have cared enough to try them. I thank those whose letters of encouragement have aided me much, and I again state I shall be glad to answer questions for the readers of the WESTERN FIELD.

In the next series I shall be apt to refer to back numbers of this magazine, so I advise you to procure a complete edition of last year's issues and the first three of this year's. The cuts for last month's work were crowded out for want of space so they will appear this month.

The new plan of work in the line of development will be mental training. A few concise, simple and easy mental gymnastics which I personally have found very beneficial, and I unhesitatingly give them to all classes. The busy merchant, who has no time to go in for lengthy training, will find them invaluable and only a few moments are necessary to their practice. The man of poor memory, who is daily exasperated at his failing, will soon be able to use his memory at will, for the concentration of his mental faculties will enable him to control each part of his mind at will.

I do not wish anyone to associate me in this line of work with any of the so-called "Mental," "Divine," or "Christian" Scientists, for although the basic principle upon which they operate (that of mind over matter) is a quite scientific one, still the means they use to obtain results from this well-known fact departs widely from true science and leaves a vast field for the imagination. The line of training which I shall map out in these pages will be entirely practicable and purely scientific.

Life to-day is so full of hurry that it is indeed true that the race is to the swift, and every man's object seems to be to go faster than the other fellow. The man who has a keen eye, quick memory and facile brain is the prize winner. To obtain these faculties with the least outlay of time is a boon to the average money-maker of to-day, and even the man of ease will find it pleasant to be able to hold up his end in the social whirl.

All will find this work interesting and pleasurable, especially those who will apply the physical work with the mental training.

I wish to call particular attention to the March number, and I would ask a careful study of it; for it is the epitome of the work in this department. It gives the key to the work to follow and is the finishing touch to the physical training that has been given.

That the brain is the master motor of the body, and that it is the instrument of the mind, is conceded by all. Like a fine telegraph system the nerves spread out through the body, responding to every vibration in the main office, the brain. But the brain is only the machine, and the intelligence that controls it is the mind. This force is the electrical energy that moves the body. No motion is made without it is first conceived in the mind, dictated to the brain, and then communicated to the nerves that execute the motion through agency of the muscles. There are the so-called involuntary motions, such as the winking of the eye, the beating of the heart, etcetera, but even these are controllable and are directed by the subconscious mind. This has been proved by hypnosis, anesthesia and other means.

As Professor Ladd of Yale says, "Nothing is more firmly woven into the texture of

experience than this conviction: that what we call our body and what we call our mind are not indifferent to each other." They can not be indifferent, as one is the reflection of the other. Of mind without the body we can not know anything; of the body without mind we know it decays and disintegrates. We see about us every day people who have no mental control, and the asylums are full of people who have become unbalanced and are not able to manage their mental faculties. This sort of disease has its origin in such common everyday conditions that they creep upon the victim before he is aware of his mental downfall.

It is hardly necessary to enlarge upon the grave danger of strain upon the mental part of man. Everyone knows that a man's body is pretty much a reflection of his mind and that his passions, tempers and habits stamp themselves upon his face and body, and are a true index of the individual. The business man who constantly hurries, works and strains for success, paints in lines most glaring the picture of his battle upon his countenance. The deep furrows of brow and around the eyes, the nervous twitching of lips and eyelids are but tokens of his mental condition and lack of balance. Here is the beginning of his physical and, in many cases, of the mental wreckage as well.

The body being the tool of the mind always tries to respond to the demands of the brain. What wonder that the constant drain of nerve power finally saps the very life centers, and leaves the physical man a prey to all sorts of ills, aches, and pains.

The mental processes are reciprocal to physical and vice versa, and what I wish to convey is the idea that a man can be what he wishes to be physically, by a proper use of his mental faculties. A man's body should be the realization of his ideal. He has the unlimited forces of nature to command at his will; he has power, strength and understanding to procure his desires; and by the use of these mental faculties he strengthens them and increases their value to him.

To limit the expression of all your powers is to limit your progress, and if your success is to be entire you must find the correlation between the mental and physical and stand master of both. In the equal division of labor, and the recognition of the rights of both sides of your nature, lies the key to power and the means to enjoy success. A man's genius is of little value to him if he has to depend upon aliens to execute his plans. Many a marvelous product of a man's brain has failed because in his mad rush to perfect his mental plans he abused his physical man, and when he required his body to help him in the final completion of his project, he has found himself handicapped by sheer physical weakness.

The world lies open to all, but only the man who is master of himself can expect to conquer. He must first recognize his own strength and learn how to use it; then he can successfully apply it to exterior objects.

We have so long looked upon an exclusively chemical treatment as the only means of cure, that it has been an uphill course educating the race to believe in its own personal power as a curative agent. We are so in the habit of expecting some foreign substance to obliterate the results of our mistakes and wrongdoing that we are slow to recognize the facts: that only right-doing and the correction of our mistakes will effect a permanent cure. We have too long expected our bodies to obey every demand made upon them whether reasonable or not, and we are apt to be surprised when they fail to give us passive obedience.

I know we are inclined to look wise and feel superior at the mention of mental therapeutics; but I confidently assert that every successful physician uses this method of treatment more or less. When a doctor can do nothing further with drugs he sends his patient away to a strange place. Why? Because he knows that a change of scene will produce new thoughts and interests and in the new mental state lies a chance for a better physical condition.

That there exists in man a power over the functions and feelings of his body, and that this power can be applied to the alleviation of suffering and cure of diseases can not longer be denied. There is nothing mystical, occult or strange about this power; it is a plain fact easily understood and used, and it is controlled by the will of man. The application of sense—good common sense—is a very sure and safe guide to health, and the man or woman who becomes enthusiastic over fads is apt to overdo. Everyone knows that excess of any kind is unwise and it is safe to use judgment in health matters as well as in business. In the course which I will give in mental training I desire to help

you gain a knowledge of yourself, mental as well as physical, and as I know the immense benefit to be derived from the proper use of the mental forces I am convinced that you, too, will find great benefit from the application of these exercises.

It should always be remembered that no power can be of value unless it is intelligently applied, and it is the object of this department to aid all in obtaining a thorough and useful understanding of the laws of health and how to make them serve us to the best advantage. You can demonstrate for yourself the truth of this line of work and I only ask a fair and careful trial.

Did you ever try to fix your whole mind upon a subject for five minutes to the exclusion of every other thought? If not, try it, and see how much you can control your thinking. The power to concentrate all your thoughts upon one subject means a thorough mastery of your brain and consequently of your body. For if you can place every faculty of the mind at will, you can soon cause a response in your body. Take, for instance, the circulation of the blood. Many people suffer from cold feet. Now if they will firmly fix the mind on the fact of good circulation and back it up with exercises given for that purpose in the July number for 1903, you will be surprised how much more quickly your blood will respond than if you doubted the efficacy of the work and went about it in a purely mechanical manner.

If you have weak lungs, and start in to practice deep breathing you will get doubly quick and good results if you fix your mind firmly on the fact that deep breathing is the means of strengthening your lungs, and so you are intelligently applying the best treatment to them. If you are a dyspeptic, you must use your will to control your appetite, and back it up by carefully working your abdominal muscles and keeping your mind fixed on the fact that you are the master of your own body.

I think I have spoken before of that most wonderful arrangement, the sympathetic nervous system. I only wish that more could be known of it by the general public, for it is truly marvelous in its operation and it would be easier for all to recognize how the body responds to the action of the nerves, and how the emotions and passions of man effect the brain and its complement—this sympathetic nervous system.

The secretions from the body of an angry man are rank poison. Now as anger is a purely mental condition it must be conceded that physical effects can be caused simply by mental disturbances. If wrong mental conditions produce ill in the body, is it not logical to suppose that mental force properly directed will effect the body in a healthy way. But experience and personal observation of these facts will teach you for yourself the truth of these assertions. How many people have a headache and forget their pain upon meeting with great pleasure. Of course if the pain is caused by a physical condition, such as an overloaded stomach, the pain will return unless the cause is removed, but if the pain is a result of a nervous state only, a complete change of mental atmosphere will entirely cure it.

Reference has been made to memory and it is hardly necessary to speak at length upon the value of this faculty. All memory is produced from impressions received through the brain. Everyone, no doubt, has had the disagreeable experience of forgetting something just at the moment he wished most to remember it. This can be overcome by controlling the attention and interest and then concentrating the mind upon the matter. But the ability to do this is the result of cultivation and can not be obtained in a few hours or days.

Good memory, keen conception, quick judgment are correlated with each other and are the result of habit. When the brain centers are healthy and the development of the bodily organism is responsive to these brain centers, the mental development will correspond to the physical, or in other words a healthy brain and nervous system ought to produce a healthy body. All conscious experiences leave an impression upon the nervous systems, and the quality and intensity of thought markedly effects the physical man. A badly frightened child will tremble and perspire, while anger will cause the blood to fly to the cheek and the eye to flash. So, as Wier Mitchell says, "If you can not get wisdom, get habit." I advise a careful study and application of mental development.

Science has as yet only given us the mere fact of the relation between mind and body,

but human experience has added much of interest to this truth. There can no longer be a question as to the validity of this statement and the understanding of this peculiar relationship is every day becoming more widespread. Man's mental life is the keynote of his existence, and it is truly so that as a man thinketh, so is he; for every vibration of that main office, the brain, is vibrated along every nerve and makes itself felt through the entire system.

The power of man to develop his mental faculties, and thereby increase and strengthen his body, is the greatest fact in creation; it places man at the fountain-head of progress and breaks all barriers to his onward march to perfection. It gives him pre-eminence in creation and raises him to a dignified and glorious position. He may be that which he desires, and to quote an eminent authority, "We may determine the growth and education of our own brains and thereby determine the growth and education of our bodies."

Many scientists and psychologists are apt to make a bugaboo of the brain activity, but common observation makes it a very plain and easily understood faculty. So I say, simply watch your own self and those about you, and this observation will teach you more than all the learned treatises on psychology and metaphysics you could read in a year. As the great German poet said:

"Wouldst thou make thine own acquaintance
Then see how other men behave;
Wouldst thou understand thy neighbor.
Of thy own heart take regard."

Mental Exercise No. 1.

First, relax your body. Lie down and relax by removing all tension from every part of the body; every muscle limp, every nerve at rest, in fact, fall as loose and lax as possible. This is physical relaxation. Then blank your mind of all other thoughts save the mental exercise, and try to think only of the power of your mind to control your body, and repeat these words firmly, while the body is relaxed: I CAN DO AS I WILL WITH MY BODY.

Mental Exercise No. 2.

Exercise for stomach. Fix your mind on the stomach. Realize that here is the starting point of power and force in the body, and that what you eat is here converted into the materials with which your body is constructed. Then say firmly: HEREIN IS CREATED LIFE FORCE AND I CONTROL IT.

This mental exercise you can apply with the physical exercise in June number of WESTERN FIELD, 1903.

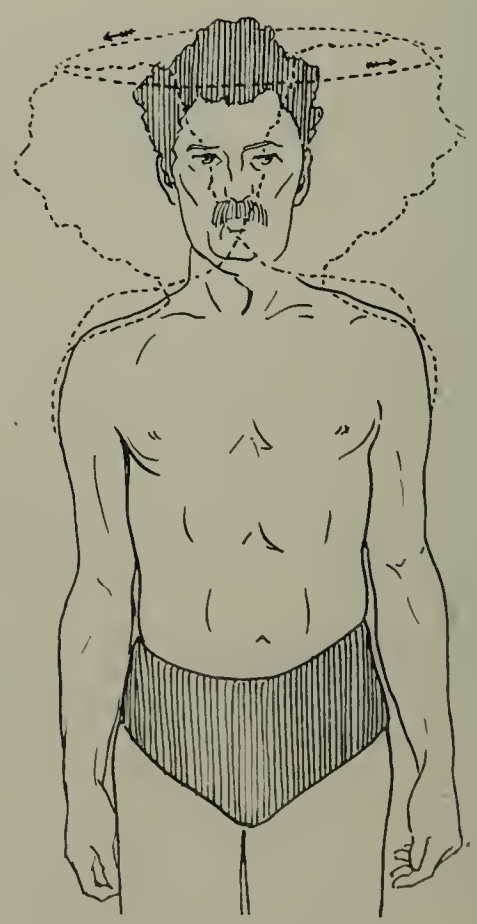


FIG 37.

FIG 35

FIG 36

PRACTICAL RIFLE SHOOTING.

By W. D. King, Jr.

PART III.

ASIDE from the accuracy of a rifle, the most important point to be considered is the fit of the arm for off-hand shooting.

The factory-made stock is all right for a light-weight rifle, where the sights are close to the barrel, but for an accurate rifle of heavy weight they are very far from what they should be.

There are hardly any two men that are built alike, and for the finest work every man should have his gun made to fit him just the same as he would a suit of clothes or anything else he wanted to be just right.

Many of our riflemen are shooting rifles which they erroneously think fit them perfectly; this is simply because they are "used" to the gun and a certain position; when, however, these gentlemen get hold of a rifle that really does fit correctly they are astonished, not only with the way the gun feels to them, but at the results achieved from using it.

The ordinary guns have entirely too straight stocks and are too low at the comb; the stock makes you "hump" your shoulder up away above its natural position, with your elbow raised to the same height or higher, which is not a natural position. Then you have to screw your head down to get to your sight, and then it does not more than touch the comb of cheek piece. I have seen some very finely made rifles with fancy stocks and cheek pieces which were being shot with sights elevated for 200 yards or more, showed their cheek pieces to be of no value whatever, as the cheek did not even touch them.

If there is any one time when a man does not want a single muscle or nerve in his body strained it is when he is rifle shooting; this is especially true in fine target work, where every fraction of an inch counts and where one has to hold so long. One must be in a comfortable position or he will not do steady shooting, and that is what counts in a long string of shots. Besides, if one is on a strain at any point he will soon tire and not be able to hold up to his standard after a few scores, but will get so unstrung that he can not hold good and will also be liable to flinch and pull when not intending to.

I will first try to explain what I consider the proper position in which to stand and hold the gun, and then how to find out when a gun fits as it should.

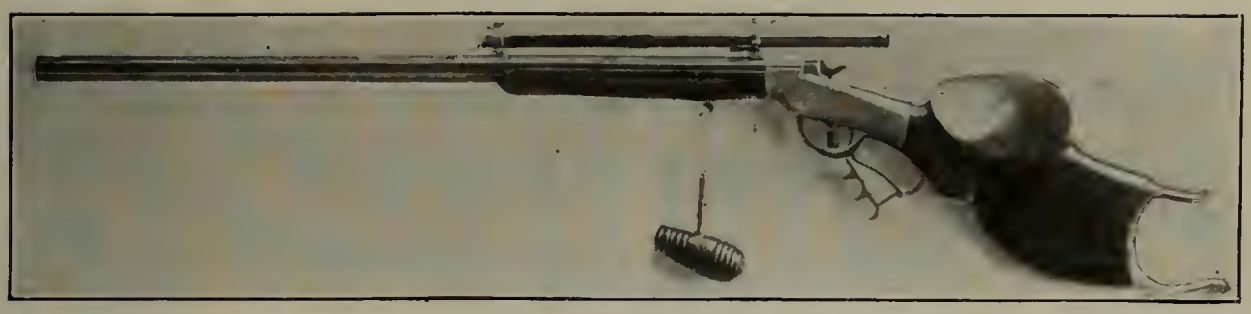
A rifleman should stand firmly on both feet, with the weight equally distributed, as in that position he can certainly stand stiller than when putting most of his weight on one foot. Of course there are many people who can get an easier position for their left arm by leaning back than by standing erect, but I think the advantage is more than offset by the swaying of the body.

To find out if the gun fits you, stand erect, or in your usual position if you prefer, and fit the gun to you in the usual way, with your eyes closed. Then

A GOOD POSITION.

relax all the muscles in your back, arms and shoulders, letting your elbow drop toward your body by its own weight and the weight of the gun. Also raise your head to a natural and comfortable position, then open your eyes and see where your sights are, and where they should be. Wherever it seems they should be when your eyes are closed is exactly where they should be when the eyes are open.

Have drop enough in your stock so that your arm and shoulders can hang in their natural position, also raise the cheek piece high enough so that you get a good rest for your cheek when your neck and head are in a natural position, so that when you feel per-



TARGET RIFLE WITH PALM REST SHOWING SHAPE AND ANGLE OF KNOB.

fectly comfortable you can open your eye and look directly through the sights.

The stock should be short enough so that it is no strain to reach the trigger; your hand should also hang in a natural position, and there are several styles of special finger levers made that are a great help. Relaxing the muscles of the shoulders, arms and wrist gives one a much better control of the trigger finger.

A good palm rest is also an important part of a rifle's appointments, as it is by its aid the gun is mainly "held" and holding is an important part of rifle shooting. I do not think that sufficient attention is paid to this part of the arm. Most people are shooting palm rests that are entirely too long for them, causing a decided angle at the hand and knob. It should be so adjusted, and of such a length, that the pressure would be in a direct line from where the palm rest fastens to the forearm, through the stem, wrist and arm, to the elbow. This gives better control and does away with the leverage where the angle is formed, which leverage is a strain and very tiring.

The shape of the knob is also an important point. Most of them are "door knob" shaped, which forces the hand back, causing an angle at the wrist, and also a strain. The bar running horizontal is also a mistake, as it places nearly all the pressure on the thumb, where the other side of the hand is much lower and does not receive any of the pressure whereas it should be evenly distributed, as the broader the base for your rest the better control you will have especially of the side motion.

Let the left arm rest comfortably against the body by its own weight and the weight of the gun, whether it touches the hip or not; don't try to force it into any unnatural position.

The rifle should also be at the proper elevation without having to change the position of the body backward or forward, and can also be accurately determined by finding a comfortable position with the eyes closed, and the palm rest adjusted accordingly.

Plenty of practice on these points, with the eyes closed, will soon determine small points that will prove very beneficial in actual shooting if the gun is otherwise made to conform to the shooter's personal requirements.

THE SPORTING RIFLE.

By E. A. Leopold.

PART II.

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THE ".32 special" is one of the most desirable of modern hunting arms. It is somewhat similar to the old .32-40-165, retaining all of the good qualities of that justly popular combination, and adding improvements which bring it down to date as a powerful smokeless weapon.

The improvement in the gun consists of a nickel steel barrel capable of withstanding pressures generated by smokeless powder, and preventing it from wearing out rapidly when copper-jacketed bullets are used in it. The twist is one turn in sixteen inches, making it suitable for black powder and grooved leaden bullets, or smokeless powder and jacketed bullets, the standard weight of bullet in either case being 165 grains. The shell instead of being tapered is bottle-necked, presenting a cylindrical form inside for the perfect fitting of the bullet.

The black powder load for this rifle is the same as for the old .32-40, giving a muzzle velocity of 1,385 f. s, and a fairly good killing range of 250 yards (or more could the game be hit with any certainty with such a high curve bullet). The smokeless cartridge gives a muzzle velocity of 2,000 f. s. and its killing power is twice that of the black powder cartridge, i. e., in all cases where the game would be standing in such position as to offer sufficient resistance to stop the bullet, such as shots at deer from the front or from the rear. In broadside shots the black and the smokeless cartridges would be nearly on an equality, the smokeless still holding the advantage of greater effect because of the greater shock always accompanying high velocity, and greater accuracy at unknown distances resulting from the much flatter trajectory.

The black powder cartridge for this weapon is useful for target practice, being cheaply produced and resulting in less wear in the gun. Supposing the rifle to weigh seven and a half pounds, then when firing the smokeless cartridge the velocity of recoil would be, theoretically, 7 f. s., and energy of recoil 5.7 foot pounds.

To stop the recoil in a space of one and a half inches would require a shoulder pressure of forty-six pounds. Those hunters of large game who seriously object to heavy recoil would do well to investigate the qualities of this rifle, as with a moderate amount of recoil it is powerful enough to kill deer, caribou, elk, moose and bear at all ordinary hunting ranges.

The .33 calibre smokeless rifle handles a projectile

weighing 200 grains, giving it a velocity of 2,050 feet per second, producing an energy of 1,868 foot pounds, and making it more deadly on large game than the .32 special, especially at ranges beyond 200 yards, the extra length of bullet being much in its favor by giving it the power to overcome the resistance of the air. This quality would be appreciated where long shots have to be made occasionally, as in antelope shooting on the plains.

A rifle of this calibre weighing seven and a half pounds would have a theoretical velocity of recoil of 8.7 f. s., and energy of recoil of 8.8 foot pounds. To stop the gun in a space of one and a half inches would require an average shoulder pressure of seventy pounds.

The .35 calibre smokeless rifle, as now made by the Winchester Arms Company, handles a jacketed bullet weighing 250 grains, and the charge of smokeless powder gives it a velocity of 2,150 feet per second. This weapon was, until quite recently, the most powerful made in this country. The large diameter and high velocity are mostly accountable for the large amount of work which this bullet will do. The bullet is also a long one, giving it power to overcome the resistance of the air and making it very deadly at distances far beyond the ranges at which game is generally killed. The heavy bullet is an advantage in enhancing the penetrative power in the case of large, dangerous and thick-skinned game at short range. The energy of this bullet is 2,580 foot pounds, indicating that it would penetrate seven feet four inches into a material that would offer an average resistance of 350 pounds.

If the rifle weighs eight and a half pounds the velocity of recoil will be 9.9 f. s., and energy thirteen foot pounds, which is equivalent to saying that it will require a push of 104 pounds to stop the recoil of the gun in a space of one and a half inches.

Some men would object to such a heavy recoil on account of the discomfort and possible injury resulting from it. There is also, generally, a loss of accuracy in off-hand shooting when the recoil of the piece is very severe. This loss of accuracy results from several causes, such as "flinching," "bracing up," and the "spring," "jump," and "flip" of the weapon. This latter class of errors, pertaining to the gun, are minimized by making the weapon thick and strong at the grip, and fastening the wooden stock very rigidly to the metallic breech piece. These thick heavy grips, used by the majority of American rifle manufacturers, give the weapons a rather clumsy appearance when compared with some of the high-grade double rifles made abroad; but it is believed by many that the greater rigidity and accuracy resulting from the American plan more than offsets the lack of beauty and graceful outline. One of the best fastenings consists of a long bolt traversing the entire length of the butt-stock, its large slotted head being concealed under the butt-plate and the forward end being screwed into the breech frame. By the application of a large screw driver the two parts can be forced together more tightly than can be attained by any other system of construction in use at the present time. The long bolt system is peculiarly well adapted to the use of the sportsman, as he can remove the stock at any time and put it back in the best possible shape, regardless of the condition of the wood, whether very dry or swelled with moisture, and this without the employment of any tool excepting a screw driver.

Although the .35 calibre is one of the most useful and desirable calibres, it has been almost wholly ignored by gun makers, with one notable exception. The Massachusetts Arms Company of Chicope Falls, Mass., manufactured a .35 calibre rifle during the entire term of their corporate existence, probably thirty years. The Maynard rifle, fabricated by this firm, was a light, compact weapon and always popular with those hunters who were satisfied with a single loader. The .35 calibre was made with twenty inch barrel for hunting, and twenty-six-inch for target shooting. The shell was charged with thirty grains of black powder and the semi-cylindrical bullet was much heavier than those generally used in the cap-lock rifles so much in vogue thirty years ago. As a result of the difference in the weights of the projectiles of the two classes of arms at that date, it sometimes happened that the little six-pound Maynards beat the ponderous muzzle-loaders at a range of forty rods or even less.

In more recent years a few fine target rifles were made in .35 calibre, by Horace Warner and others who were engaged in that class of work.

Since the general adaptation of smokeless powder to sporting weapons, the .35 calibre comes prominently to the front, as it is probably the most suitable size for long range shooting, especially target shooting under the new rapid-fire system which practically bars black powder and large calibres. The recoil of the hunting rifle of this calibre, as now made by the Winchester Company, could be very materially reduced by reducing the weight of the bullet; and this change would also improve the velocity and lower the trajectory at short range; the general result being increased killing power on deer and smaller game, and increased accuracy at ranges within 200 yards. The bullet I have in mind would be a partly jacketed missile with soft point and weighing about 200 grains. The regular Winchester shell, which is 2 13-32 inches in length, could be retained, and this with its standard charge of smokeless powder would produce a muzzle velocity of approximately 2,400 foot seconds, which is greater than that of any other strictly hunting rifle made in this country, or probably, in any country. The increased velocity would increase the mushrooming qualities of the bullet, thereby making it a quicker killer on ordinary game at short range, besides reducing the amount necessary to hold ahead on running game, and flatten the trajectory at ordinary game shooting ranges. What I have said in favor of a 200-grain bullet should not be construed as unfavorable to, or a criticism of, the standard 250-grain bullet which would show superiority at 500 to 600 yards range, also at short range in the case of thick-skinned animals requiring the employment of a missile having great penetrative qualities. If it be a fact, as heretofore intimated, that the .35 calibre cartridge possesses special advantages, both for hunting purposes and for target shooting at various ranges, then it would seem to be desirable to provide several different lengths of projectiles suitable to fill these various requirments. The 250-grain bullet is 3.22 calibres in length. A jacketed bullet for long range shooting should approximate 4 calibres in length. This long bullet would require a moderately short twist of rifling to keep it point on at ranges of 1,000 to 1,500 yards—say one turn in fifteen inches would be approximate, but the exact pitch to give best results could only be determined through experiment. Mathematicians who are experts in gunnery have formulated tables showing the proper twists for the various lengths of projectiles of different calibres, but these tables were adapted to black powder conditions i. e., to moderate velocities, and they require modification to meet the new conditions inaugurated by the general adoption of jacketed bullets and smokeless powders.

A .35 calibre rifle, using smokeless powder, and a jacketed bullet 4 calibres in length, with hollow lead point, would be an excellent weapon for seal shooting on the Pacific Coast, where long shots are the rule, and where it is often necessary to make shots at distances of a half to three-quarters of a mile. Such rifles should be provided with a telescopic sight of low power having a large field (say a magnifying power of eight diameters, with a tube one inch in diameter or seven diameters with a seven-eighth-inch tube) so as to get the maximum illumination. In case the seal shooter should desire a glass of higher power he should have it made up in a larger tube so as to preserve the illumination, which is a most excellent

quality in a hunting glass as it assists, in a measure, in making shots when the light is poor. The telescope should be so mounted on the rifle that it could slide back and forth in the mountings, in this way doing away with the danger of being struck in the face by the rear end of the instrument through the recoil of the piece when fired. The sliding mechanism also relieves the mountings of severe strain, and makes it possible to make, and hold, very fine adjustments. Another advantage, in many cases, is that the telescope can be pushed forward away from the breach to facilitate cleaning, loading, etc. The telescope here described is not a very low power, but is called "low power" to distinguish it from the kind that are generally used for target shooting, at rest; the powers of which range from twelve to eighteen diameters, and which are not suitable for game shooting, although they are sometimes used for that purpose.

The main reason that the high-power telescope is unsuitable for hunting purposes is because its field is necessarily small, which makes it difficult to align it quickly with sufficient accuracy to include the image of the game within its field. A chance to fire a shot at game is often lost by consuming too much time in preparation.

If the .35 calibre 300-grain bullet were given an initial velocity of 1,900 f. s. its energy at 500 yards would be 1,063 foot pounds, and at 1,000 yards 415 foot pounds. The .35 calibre 250-grain bullet, which has an initial velocity of 2,150 f. s., has an energy of 1,064 foot pounds at 500 yards, and 314 foot pounds at 1,000 yards. While the energies of the two bullets are practically equal at mid-range, the 300-grain bullet has one-third more energy and killing power than the 250-grain bullet at 1,000 yards. The 200-grain bullet, with an initial velocity of 2,400 f. s., would have an energy of 461 foot pounds at 500 yards range; sufficient to kill game not larger than the common deer. An eight and a half-pound rifle for this cartridge would have a recoil of 10.7 foot pounds, requiring a shoulder pressure of sixty-five pounds to stop it in a space of two inches. The 250-grain bullet in a weapon of equal weight, producing the ballistic effects above noted, would produce a recoil of thirteen foot pounds, or seventy-eight pounds pressure over a space of two inches; while the 300-grain bullet with the velocity above suggested, in a gun of equal weight, would produce a recoil of 14.1 foot pounds, which could be stopped in a space of two inches by applying a force of eighty-eight pounds.

This latter weapon is only intended for shooting game at long range and would be unsuitable for any other purpose.

The .35 calibre rifle with 200 or 250-grain bullet would be a suitable weapon for killing the largest game in America for those who would not object to the recoil. The figures given above for recoil are obtained by the usual method of computation, and are probably less in every case than the actual results obtainable by careful experiment. Some actual measurements have been made and will be discussed later on.

Painted by Grace Hudson. PROSPERITY.

HINTS TO AMATEURS.

-PART II.

By Arthur Inkersley.

IN DRIVING the head of the player must be kept absolutely steady. All through the upward swing of the club the eyes must never for an instant be tempted to look where the ball is going. Though the swing is more or less mechanical, it is not wholly so. Without a keen and attentive eye the golfer can not expect to bring the club down in a perfect swing, so as to sweep the ball away. Throughout the whole of the upward swing the eye must be kept riveted on the ball, until at the top of the swing it will be looking down over the left shoulder; as the club swings down, the eye should be fixed more firmly still upon the ball. Begin by looking at the ball as hard as you can, and keep looking at it harder and harder, until it has been struck away: even go on looking at the place where it was after it has gone. "Keep your eye on the ball" is a maxim taught insistently by all professional coaches and is of the highest importance. Moreover, as the object is to hit the ball on the side, not on the top, the eye must be fixed on the particular part of the ball that it is desired to strike.

Success in golf, as in all ball games, depends upon the trained harmony of eye and hand. It is necessary to help the natural correspondence between the two by mechanical means. Hence the golfer's preliminary "waggle," a movement of the club over the ball to make sure that the body is at the right angle to bring the hands at the proper distance (with regard to the length of the club) from the ball. The "waggle" also enables the player to see that all the machinery is in working order; that the muscles are flexible; that the player is standing at a convenient distance from the ball and that the left hand has a tight grip of the club shaft, while the right hand grasps it in such a manner as to allow for some play of the club. The "waggle" seems to the unskilled observer to be a mere piece of unnecessary flourishing, but it is really valuable and no one can dispense with it. Golfers adopt many strange attitudes, but none do without the "waggle" altogether. Do not, however, "waggle" too much: this is not only awkward in appearance but hurts the accuracy of the stroke.

The ideal "waggle" consists of a gentle swaying to and fro, once or twice, of the club over the ball, and in the same vertical plane as the arc which the head of the club should describe in the actual strike. The "waggle" should be made with the wrists alone, and the upper arm should take no part in it. Yet in a properly limber body every joint from the knees up will be affected by the "waggle." The club head should swing about a foot and a half in front of the ball and about three feet from it behind. The length of the swing in the "waggle," however, depends considerably on the individual.

Though many brilliant and strenuous golfers "waggle" their drivers with a good deal of force, the ideal "waggle" is a smooth and quiet affair and by no means an athletic feat. All the joints, except the grip of the left hand, should be loose, the wrists alone taking an active part in it.

After the "waggle," the club-head should rest for an instant on the ground behind the ball, before being swept away smoothly from it at the beginning of the upward swing. As the hands place the club to address the ball, they should be brought low down. Though the shoulders should work freely, the backbone must be firm. The player must not let himself bend up from the small of the back as the club comes away from the ball. Throughout the swing the back must remain at the same inclination as when addressing the ball for the "waggle." It must not be permitted to unhinge itself at the small of the back or to rise up from the hips, for this throws all the measurements out of order, and will almost certainly produce a "topped" or "sclaffed" ball. The muscles must be flexible but under control. If imperfect control is exercised over the muscles, there is a tendency to "fall over" the ball as the club comes down to it.

The question of the right degree of suppleness in the shaft of the club is of importance in this connection; for, if a quick swinger uses a very supple club, his hands and body will have returned to the position in which they should be at the instant when the club meets the ball, while the club, from the extremely supple nature of its shaft, will be so bent that its head is still several inches away from the ball. When the club-head does meet the ball, the hands will be in front of the ball. The same club in the hands of a slower swinger would not have been so bent or would have become straight again before the head met the ball. The player, therefore, should choose his clubs with reference to what is his most natural and easy swing.

As a good golfer drives, he allows his body to turn from the knees. As the club goes up, the left knee is bent inward and downward (as the left shoulder comes down), and the right knee is bent, rather less than the left, and outward. The upward swing should be slow and even and the downward swing even and swift. The upward swing must, however, be a swing and not a lift. In a swing the player is all the time conscious of the weight of the head of the club swinging up or down at the end of the shaft. The natural movement of the club must not be interfered with by tightening the muscles; for this produces jerkiness. The speed of the swinging head of the club may be encouraged and quickened but not over-quickened. If the pace is accelerated too much, the true swing is lost and we get a hit or jerk. There must be no pressing. The club must be allowed to swing itself through and must not be used to hit with.

In order to become as good a golfer as a man's natural aptitudes allow, he must go through a careful training; but in playing a match, he should let his style look after itself, concentrating his mind upon striking the ball, without thinking how he is going to do it. The adjustments that he has acquired with so much labor and painstaking perseverance will then reproduce themselves spontaneously.

As the club comes to a horizontal position behind the player's head at the top of the swing, it should be high above and far from striking or resting on the right shoulder, as often happens in the case of young golfers. The arms should be kept well away from the ball in the upward and downward swings and well away from the body after the ball is struck, so as to fetch the club round at the greatest distance possible from the left shoulder.

The swing should be allowed to work itself out; it should be free but not hurried. Accuracy should not be striven after so painfully that all spontaneousness and life are lost. The player must be looking at the ball at the instant that the head of the club meets it. The eye must not be allowed to wander from the ball during any part of the swing.

The above instructions are intended only to be carried out fully by men who have not wholly lost the suppleness of youth. They are not practicable in their fullness by men who take up golf rather late in life, when their figures have lost their youthful lissomeness and slimness. The jolly old boy who begins his acquaintance with golf at an age when good dinners have enlarged and rounded his form must not hope to raise the club to the horizontal behind his head. It can not be done by any easy or natural means: even if he does succeed in doing it, it is by falsely encouraging the swing. The swing acquired in this way will not be a genuinely long one. The swing must be allowed to develop itself as far as it will naturally and freely, but it will fall greatly short of being the grand curve described by the head of the club in the hands of a vigorous young golfer. The swing, however, of the old golfer must be on the same principles and of the same kind as that of the young player.

The errors in driving the ball are slicing, pulling, hooking or drawing, topping and sclaffing. Slicing is bringing the club-head across the line of flight so that a left to right spin is given to the ball. A ball is also said to be sliced when it is driven to the right of the intended line of flight, though no curve has been communicated to it. Slicing is produced either by standing so far to the left of the ball that it is hit to the left of the center; or by letting the wrists work so freely that the arms and hands come round in advance of the club-head, so that, when the ball is hit, the face of the club is at an acute angle to the line of intended flight. As a sliced ball starts off high, a player sometimes wants to slice a ball so as to get it over an obstacle in the line of flight. This is done by standing with the right foot nearer the ball than for a straight drive.

Pulling is hitting the ball to the right of its center, so that it flies to the left. This is produced by standing too near the intended line of flight and swinging the arms too far out, or by leaning too far forward, or by hooking the face of the club in the swing forward. A ball may also be pulled if the club is pushed from the body at the moment of concussion, so that a right to left spin is communicated to it. To correct a tendency to pull it is necessary to keep the point of impact on a line with the hole; to carry the club-head forward on the line of flight and not let the club swing round the body; and to keep from pressing.

To top a ball is to hit it above the center: the higher it is hit, the more it is driven into the ground with a loss of momentum. A topped ball has forward spin in it but on touching the ground it bounds with reversed, or backward spin: on touching the ground a second time it falls dead. A ball may sometimes be topped intentionally when it is on a downward slope. To avoid topping the player must keep his eye not only on the back of the ball but on the ground behind the ball; must avoid standing with the ball so far to the right of the body that the club will be descending when it strikes the ball; should not swing the club-head in a circle but in an ellipse; should not rise on the toes with the forward swing; should bring the club-head close to the ground some distance behind the ball.

Sclaffing or baffing is hitting the ground behind the ball and so spoiling the stroke altogether.

THE SEASON IN SOUTHERN CALIFORNIA.

By R. H. Hay Chapman.

It is impossible to give an accurate review of the spring season in Southern California without voicing the note of disappointment that has prevailed in the championship meetings. The three most important events in the California golfer's year were scheduled for Los Angeles during the months of February and March as follows:

The Southern California Golf Association's amateur championship, February 17-20.

The S. C. G. A. open tournament, seventy-two holes, medal play, March 4-5.

The Pacific Coast Golf Association's amateur championship, March 9-12.

In the first place it has been an almost unprecedentedly dry year, no rain falling between September until the second week of February. Such a condition was about to spoil the usual spring enthusiasm, and the majority of golfers were not attracted to the links as long as they remained as dry as a board and as hard as a rock. The links were as bare as the desert and a half-topped ball would travel as far as a clean shot, with little resistance from brinkers. The universal use of the modern lively ball increased if anything the premium on bad shots.

Happily, however, rain came just in time to put the links in shape for the first big event and the Los Angeles Country Club's course was never in better shape than at the time of the two other championships.

The greatest disappointment of the season lay in the fact that only a single lone golfer traveled from the north to take part in the Pacific Coast meeting. This rendered the annual team match which is always the most enjoyable feature of these meetings, between North and South impossible. All honor to J. W. Byrne of the San Francisco Golf Club, who forsook the cavalry devastations of the Presidio links for two days' golfing in the south. By the way, what kind of general have you got in command at San Francisco now that he takes delight in ruthlessly spoiling sport and destroying the fine turf at the Presidio. Surely there are other plains for cavalry gallops besides the fair greens of the S. F. G. C.

And in all there were only eighteen entries in the Pacific Coast event, two of whom retired before the qualifying round was finished, rendering that preliminary ceremony a useless and uninteresting farce. In the semi-finals there was not a single genuine coast player left, for of the four men remaining in the contest three hailed from Chicago and one from Denver. C. E. Maud, last year's champion, was at the last moment unable to play; C. E. Orr has gone to Cuba; William Frederickson, at present the top-notch performer in the L. A. G. C., could not spare the time owing to professional business, and neither Golcher, the Folgers, John Lawson or Harvey were heard from. If such a state of things continues these tournaments are bound to die of inanition and I cordially second the suggestion that in future all P.

C. G. A. events be played at a half-way point, which offers itself in the vastly improved links at Del Monte. It is true that Del Monte is by several hundred miles nearer San Francisco than it is to Los Angeles, but I am confident, if the dates are judiciously fixed, Southern California golfers will be well represented.

But to return to the play. Two youngsters from Chicago who have been wintering at Santa Barbara, Alden B. Swift and W. F. Moore, made the best showing in the tournament. Moore won the medal for the qualifying round with an excellent score of 159 and also took a semi-finalist medal. Alden B. Swift, who is only eighteen years of age, captured the championship after a long stern chase of six hours, beating Walter Fairbanks, the Denver veteran, at the thirty-sixth hole. Charles L. Hunter of the Midlothean Club, Chicago, shared third honors with Moore.

Young Swift's tactics in the final match called forth a good deal of deserved criticism. He employed the local club's professional to caddie for him, which is well within the letter of the law but, I maintain, against the true spirit of the game. Swift also indulged in such extraordinary deliberate and slow play as to wear out the patience of spectators and to effect even the cast-iron nerves of "Forty-Hole," "Foxy Grandpa" Fairbanks. The best traditions of sport are violated whenever one man takes undue advantage of another, and to my mind the employment of the greenkeeper as caddie and such deliberate delays as characterized Swift's play constitute unfair advantage.

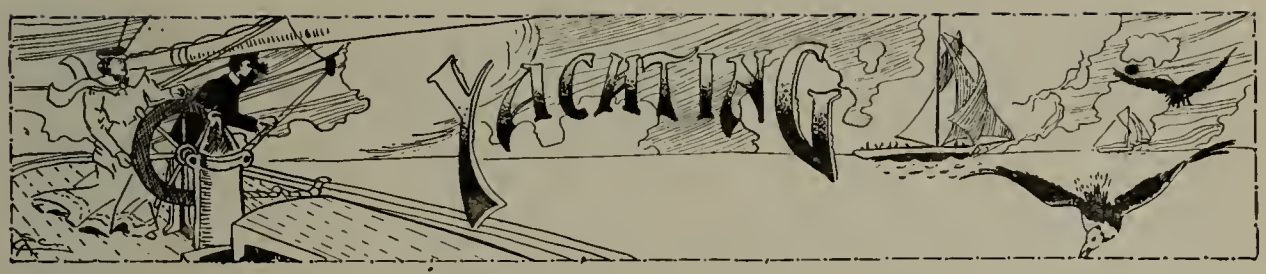
Nevertheless the Chicago youngster played a strong, if by no means brilliant or attractive game, and if he will abandon such strategies as marred this particular performance, he will undoubtedly develop into a great golfer.

The open competition also had eighteen entries, nine amateurs and nine professionals. Alex Smith, who this winter has been in retreat at Ensenada but will probably return to Coronado next season, for the second time captured first money, and except in his last round, played fine golf. His score for the seventy-two holes was 315 or one stroke better than Bogey. Six strokes divided Alec from his younger brother, George Smith of Oakland, who has improved very much since last year and promises to play as strong a game as either of his more famous brothers, Alec and Will. Arthur Rigby, the Los Angeles C. C.'s professional, was third with 323. Robert E. Hunter, the young Midlothian amateur, who entered from the Pasadena County Club, took fourth honors with 324 and another amateur, T. C. Waterous, late of San Diego and now of Los Angeles, was fifth with 325. George O'Neil, the Pasadena professional, was sixth, and as M. Hunter waived his prize, came in for fourth money.

The Southern California amateur championship fell into new hands. W. K. Jewett of Colorado Springs and the Pasadena County Club, who in previous years has never quite reached the top flight, won after a fine match with William Frederickson, beating the Los Angeles man three up and two to play in thirty-six holes. The semi-finalists were T. C. Waterous and Walter Fairbanks. There were some interesting matches during the tournament but no phenomenal golf, and on the whole, the standard of play was not equal to that of last year.

On the whole, then, the season has been disappointing. It has been demonstrated that if these tournaments are to command sufficient interest to be perpetuated, there must be more entries. Golfers should not refrain from entering such contests merely because they do not think they have a "show to win." When tournaments decline to the level of pot-hunting expeditions their days are numbered. Again, as I have said, if the Pacific Coast Association is to live, it will be advisable to select a central links for the championships. And last, but by no means least, every lover of the game must guard jealously against any infringement of the spirit of sport and the best traditions of golf.

Stevenson, Photo. SANTA CATALINA GOLF CLUB, AVALON, CAL.



By Arthur Inkersley.

An English writer on yachting says that one of the most common causes of disappointment in the speed of a yacht is the misplacement of her mast or masts. A well-built and good-looking craft may fail to show speed because of the lack of due attention to the length and position of her spars and the resulting spread of her canvas. A yacht may be so overwhelmed by spars, canvas and ballast that the wonder is that she can stagger along at all. Some yachts have been greatly improved by reducing the length of the masts, while others do better by the addition of more canvas. To make them capable of their best one vessel must have her spars cut down, while another must have them lengthened. A balance between the carrying and the driving power is what is really necessary.

In order to get a craft properly masted a correct sail draft is highly important. The proper dimensions and right positions of a yacht's spars are determined by the center of effort of the sails and its relation to the center of displacement, the center of gravity and the center of the longtitudinal section. The arrangement of the mast or masts of a vessel exercises great influence on her speed and general behavior.

Many a craft steers and behaves badly because of a lack of harmony between her lines of immersion and emersion, as they are technically termed. If the lines of the quarter above water do not harmonize with the lines beneath, when the vessel heels over under a strong breeze she suhmerges a greatly increased water-line, and if this is fuller than it should be at the quarters of the vessel a great wave is created. This wave, being carried along with the vessel, causes a drag upon the quarter under which it appears, just as if a rope was being towed overboard from it. The drag aft makes the vessel require a lee helm. As soon, however, as the wind relaxes its force, so that the boat stands up, the faulty water-line is lifted up and the craft again obeys her helm readily. In such a case as this the bad behavior due to a faulty construction of the hull is very likely to be attributed to her spars.

Nearly every builder has a theory of his own with regard to the placing of a yacht's spars, his theory being partly adopted from some system modified to fit his own ideas, or being the result of a combination of systems. A system of sparring that was suitable for the old style of hull, the bow of which was like a cod's head and the stern like a mackerel's tail, is wholly unsuited to the greatly changed hull of modern days. Yet builders kept on stepping the masts in the old positions, without regard to the entirely different manner in which the hull met the water. Many good, wholesome craft acquired the reputation of being wet and dangerous, simply from the fact that they were not properly sparred. A vessel must be enabled to meet and overcome the resistance of the water, without being dragged in one direction by her canvas and in another by her rudder, if she is to make any speed.

In order to find out the most effective system of placing a vessel's mast or masts, so that the canvas may propel her at the best speed and to the best advantage under varying conditions of wind and weather, two or three points with regard to the canvas and the hull must be kept carefully in view. The first of these is that every sail, whatever its shape may be, has a center of effort, or, as it has been called, "a center of propulsion." No matter how a sail is spread to the wind, it has its center of propulsion; and all the sails have a common center, which is called "the center of propulsion."

As regards the shape of the hull, every vessel intended for high speed has as small a direct and as large a lateral resistance as is consistent with stability and the proper draft of water fore and aft. When the vessel is close-hauled on the wind, her large lateral resistance prevents her from drifting in the direction toward which the wind is blowing, while her direct resistance is so comparatively small that she glides ahead at an acute angel with the wind. This constitutes her power of sailing near to the wind, a quality which is one of the most important that a vessel possesses.

The water acts as a wall under the lee of the vessel and will not permit the passage of so large a surface in that direction. The vessel, therefore, is driven in the direction of her least resistance, viz., forward. The lateral resistance of the vessel and the power of the water have a common center, which is called "the center of lateral resistance." On this center a vessel oscillates laterally, just as the beam of a scale oscillates on its fulcrum. When she is close-hauled and the sails are distributed in such a manner that the same amount of their effort is exercised forward of this point as aft, then the center of propusion of the canvas coincides with the center of lateral displacement of the hull, effecting a harmonious combination and directing the best efforts of both to a common object, viz., sending the vessel ahead as fast as possible. If, however, the center of propulsion and of lateral resistance do not coincide, then the former must be either forward or aft of the latter. If it is forward, the head of the vessel is forced to leeward, and she will require a lee helm to make her go in the right direction. Propelling power will be lost; her speed will be retarded by the rudder and she will be strongly inclined to drift to leeward. If the center of propulsion is aft of the center of lateral resistance, she will require a strong weather helm to keep her on her course and prevent her from griping or eating into the wind. There will be a contest for mastery between the rudder and the canvas, with the result of seriously diminishing her speed, the canvas being a strain and the rudder a drag upon her.

A third and most vital quality of a vessel is her stability. This is the height of the center of propulsion of the sails above the load water-line of the vessel. Besides finding the longitudinal position of the center of propulsion of all the sails, it is necessary also to determine the height of that point above the load water line.

Not only does a vessel oscillate laterally upon her center of lateral resistance but she also oscillates

longitudinally upon her center of gravity of displacement—a widely different thing from the center of gravity of the vessel. The center of gravity of a vessel is the point at which the weight of her hull, spars, rigging and sails are concentrated and may be called the center of absolute gravity; but the center of gravity of displacement is the center of that body of water which is displaced by the hull of the vessel from the load water line downward. The center of absolute gravity tends to push a vessel down in the water, and the center of gravity of displacement to push her up. The center of gravity of displacement acts at a point called the "Meta Center," and, as every vessel displaces her own weight of water, the two forces hold each other in equilibrium.

The absolute center of gravity of a vessel can be ascertained only approximately; but its position is sufficiently defined by the fact that, when a vessel floats upright and at rest, it is in the same vertical plane as the center of gravity of her displacement, or the center of buoyancy, which can be determined accurately by mathematical calculation. It may be assumed that in all well-proportioned vessels it is at or near to the greatest transverse section of the vessel, that is, the midship section, or a little forward of it, but, for the sake of accuracy, it ought to be calculated.

The center of propulsion of the sails should be as nearly perpendicular to the center of buoyancy as possible; and if the center of propulsion, the center of buoyancy and a center of lateral displacement can be brought nearly to coincide, it may be assumed that, other necessary conditons being present, high speed, easy performance and stability will be attained almost in perfection. The Meta Center may be said to be the point at which all the efforts of the hull are united to keep the vessel in a perpendicular position. It can be found by calculation, but only approximately. The calculation, therefore, should be confirmed by experiment and by comparison with vessels of proved good qualities.

It has been said that the center of propulsion should be placed perpendicular to the center of buoyancy. If the center of propulsion is placed too high, when the vessel is sailing with the wind free or dead after, the pressure of the wind on the sails being stronger than the resistance of the water at her bows, her nose is buried and her stern is lifted out of the water, so that she can not sail on her proper water lines; her speed and obedience to the rudder are injured and she is rendered cranky and dangerous. If the center of propulsion of the sails is placed too low, the resistance of the water at the bows overpowers the force of the wind, and, the pressure of the water being at right angles to the bow, the stern is depressed and the bow is raised up. The craft "squats" in the water and her proper sailing lines are deranged.

The points, then, to be determined are the longitudinal and vertical position of the center of propulsion of the sails, the center of lateral resistance or displacement and the center of buoyancy. A vessel's performance off a wind helps greatly to determine the height of the center of propulsion. The area of sail may be determined largely by the vessel's behavior when close-hauled on the wind.

Thus the sail draft determines the proper position for the spars of a vessel, and in making the draft of a schooner, it is best to confine it to the three lower working sails, for it is under these that her qualities will be tested in heavy weather. It is hardly necessary to say that the position of a mast must not be sacrificed to the interior arrangements of the cabin, as is sometimes done. The proper disposition of the canvas is a matter of such importance that nothing must be allowed to interfere with it.

Two vessels may be of the same length, beam and draft of water aft, and yet be entirely dissimilar in shape. One may have a full fore body, with rounded bow lines, and a lean after body, with a fine or hollow run, and draw nearly as much water forward as she does aft; while the other may have a fine entrance, with hollowed lines and a full after body, and may draw little more than half as much forward as she does aft. These differences of form affect the position of the center of gravity of displacement and the center of lateral resistance; and have an important effect on the position of the center of propulsion of the sails. Rules based on the length, beam and draft of a vessel are only approximate, and merely serve as a guide where to place the mast or masts on a sail plant, preparatory to a more careful calculation of the position of the centers of hull and canvas. A full-bowed vessel requires her foremast placed farther forward than a sharp craft. The form of the vessel must be considered by the designer and the disposition of the masts changed to suit it.

By Arthur Inkersley.

AT THE Sportsmen's Show in Madison Square Garden, New York, much space was devoted to motor-boats, of which there was a greater number than had ever been gathered together in this country before. In the center of the amphitheater a lake 190 feet long and seventy feet wide was constructed, round which the makers of marine motors and motor-boats exhibited their productions. The boats were shown in operation on the lake.

The motor-boat is the result of the development of the four-cycle gasoline engine used in automobiles and its application to a water craft. The light and powerful engine suitable for the self-propelled carriage is well adapted for use on the water in cases where speed is the thing chiefly desired. Auto-boats capable of high speed have been constructed in England, France and Germany. Hitherto attention has been devoted chiefly to the construction of motor-boats of great power for racing, but in time the knowledge thus gained will be applied to the production of pleasure auto-boats of moderate size and power.

It is considered certain that the cylinder-fired gasoline engine will be adopted universally, or nearly so, in motor-boats of all sorts, whether intended for racing, cruising or for the purposes of business. The steam engine will be reserved for use in yachts of considerable size and in large ocean-going vessels. The reason of this universal adoption of the gasoline engine is that it develops more horse power for a given weight than the steam engine. A gasoline engine of a given power is lighter than a steam engine of the same power.

The gasolene motor is not only lighter, but it occupies less space than the steam engine. The gasolene engine is compact and complete in itself, requiring no boiler, smokestack, condenser pipes, or other accessories that weigh heavily and take up much space.

Almost all the early motor-boats built in the United States were furnished with upright, single-cylinder gasoline engines of the two-cycle type, similar to those used for stationary purposes. Weight was not considered an important matter. Now engines are lighter and more powerful: they are of the double-cylinder type. Though they use rather more fuel for a given amount of power than the engines of the four-cycle type, they have considerable advantages when the owner of the boat is also the operator. They are the most compact and simple automatic engines existing.

The two-cycle type of motor is used rarely in automobiles and it is not yet certain what will be the result of the employment of the light four-cycle type of gasoline engine in motor-boats. Heavy four-cycle gasoline motors have been used for some time past in motor-boats, the weights of the engines varying with the makers. No regular scale of weight per horse power has been adopted, but the general tendency now is to the adoption of a scale of medium weight, except in boats intended for racing.

The motor-boat has several advantages over the automobile. It is free from the vibration of the road, from dust and grit; all its parts can be easily got at for examination and the space is not so limited as in a motor-car. Water in abundance can be had for cooling purposes, and it may be discharged directly overboard or through the muffler, which it helps to cool.

The great development of the motor-boat is indicated by the statement that there are 1,300 builders of motors for marine use and nearly 15,000 motor-boats in this country. The boats vary in price greatly, some of them being within the reach of the man of moderate means. In their use they possess considerable advantages over the automobile. The law seems to devote its attention mainly to terra firma and leaves the motor-boat unhampered by vexatious restrictions. The popularity of the motor-boat is due to the fact that any person, after a little instruction, can manage it. Even a small motor-boat is capable of carrying a party of pleasure-seekers, and in craft of larger dimensions considerable comfort and space are found. On every river, lake and bay in the country motor-boats are used, either as pleasure craft, or as tenders to yachts and larger vessels.

Motor-boats use so little fuel that the cost of keeping one of moderate size in commission during the summer is not high. For the winter they can be hauled out of the water and put away under cover, so as to dry out their hulls.

The manufacture and employment of motor-boats have reached such great proportions that the term "launch," once applied indiscriminately to boats of all sorts provided with gasoline engines, seems unsuitable. It is said that the term "launch" was first applied to the boats carried on the davits of large vessels, which, when wanted for use, were lowered or launched. Steam engines were used in these boats, and the name "launch" stuck to them after gasoline motors had taken the place of steam power. Gasoline boats used for any purpose, independently of large vessels, were called "launches." Now it seems appropriate to apply the term "motor-boats" to pleasure craft fitted with gasoline motors; to name large cruising craft "motor-yachts" and to reserve the term "auto-boat" for racing vessels of any size, when provided with automobile engines.

The use of auto-boats has become so general among wealthy dwellers by the sea, river or lake that auto-boat annexes have been formed by the Automobile Club of America and the Long Island Automobile Club. Many of the members of the New York, Brooklyn and Atlantic Yacht Clubs have motor-boats, and these clubs, in conjunction with others, have organized the American Power Boat Association, which has drawn up rules to regulate auto-boat racing. The first race under the new rules will take place on Decoration Day in Manhasset Bay, Long Island. The association has a perpetual challenge cup, which will be competed for on the Hudson River on June 23, 24 and 25, the course being about twenty nautical miles up the river and return, finishing off the Columbia Yacht Clubhouse.

For the purpose of timing the speed of motor-boats a measured course has been staked off at Manhasset Bay, so that a man who is thinking of buying a craft for which a certain rate of speed is claimed can time her himself.

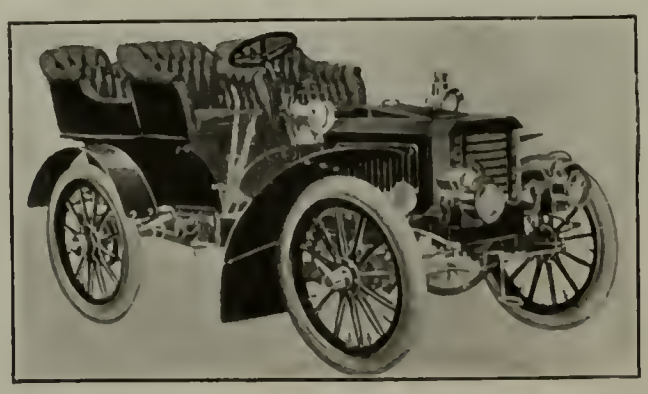
A large number of entries has been received for the race for the Gordon Bennett International Cup. Germany has entered four machines and two drivers, Baron de Cabers and Jenatzy, the winner of the trophy in last year's race. France has entered ten machines and seventeen drivers, among whom are included Rene de Kugff, Gabriel, Jarrott, Henri Fournier and Achille Fournier. It is not unlikely that Madame du Gast may be a driver. England has entered four machines and seven drivers, among them being S. F. Edge. The United States has entered three machines and the same number of drivers. Belgium has entered one machine and two drivers. Austria, Italy, Switzerland and Holland have entered one machine apiece. The German elimination trials will probably be held near Lunebourg in the Province of Hanover. There is difficulty about getting a course in England and the English trials may take place on the Circuit des Ardennes. The racing committee of the Automobile Club of France may use the Circuit de l'Argonne, if it is found satisfactory and the permission of the government can be obtained; otherwise, the Circuit des Ardennes.

The road from Kastel Saalburg through Ursingen, Keilburg, Imburg, Neuhof, Konigstein, Ober-Ursel and back to Kastel Saalburg, over which the race for the Gordon Bennett Cup is to be held this year, is 139.4 kilometers in length, and must be covered four times. The Castle of Saalburg is situated about three miles from Homburg. The road has an unusually good surface and varies in width from twenty feet to forty feet.

The selection or rejection of the American cars entered depends on the technical committee of the Automobile Club of America, in whose charge are the elimination trials. The poor performance of the American cars last year was explained by a lack of appreciation of the requirements, which, though excusable then, would be an indication of incompetence now. So much publicity was given to the race last year that people are familiar with the conditions. The committee has not yet made any definite announcement with regard to the time and place of holding the trials. It has been suggested that they be held on one of the Atlantic beaches, either in Virginia or Florida. *The Automobile* expresses a hope that a beach trial will not be adopted unless it is found quite impossible to secure a suitable road course. It also suggests that qualifying trials is a more suitable term than eliminating trials, inasmuch as the purpose of the committee is to select the cars that by their performance create a reasonable belief that the cup may be captured by an American car. For this purpose trials on the hard, smooth, absolutely level sand of the beach at Ormond, for example, are not of much value; for they only determine the highest speed attainable by a car under the most favorable conditions.

American drivers of motor-cars have had very little experience in racing on public roads in the winning or losing of a contest in which the skill and temperament of the driver are quite as important elements as the correct construction of the car. To determine the skill of the driver a road trial is far more effective than a series of short spurts at maximum speed along a sea beach. To permit cars and drivers that are not thoroughly trustworthy to take part in the race for the international trophy would do a good deal of harm to those American manufacturers who are trying to build up a foreign trade.

Power, weight and speed in an automobile mean expense; and expense not only in first cost, but in keeping up. The man of small means who is content with a six horse power motor-car weighing 700 or 800 pounds, and who will drive it at a moderate speed, will find his automobiling both pleasant and inexpensive; that is, if he buys a soundly constructed car at the outset. But if he drives hard and is not careful of the tires, he will find that his expenditures run up alarmingly. All cars have a certain speed at which they can be run economically as regards the consumption of fuel and the wear of tires. Driving at a higher speed means a greatly increased cost. The expense of automobiling rises quickly as the size, weight and speed of the car are increased. The gears wear more quickly, the tires suffer and the consumption of fuel is greater. The maintenance of a heavy car capable of great speed is much higher than the increase in weight and horse power seems to account for. The popular idea of the expensiveness of automobiling is largely due to the fact that people do not generally appreciate these things. People of moderate means would find motoring a much less costly amusement if they contented themselves with small, light and moderately fast cars. The very different statements that are often made as to the cost of operating certain cars would be explained if it were known how they are driven. The high-powered car is a costly plaything for the rich. The former secretary of the Automobile Club of Great Britain, in an article recently published in the *Badminton Magazine*, estimates the cost of tires alone on a high-powered Mercedes car at seventeen cents per mile. When four cents per mile for fuel and the cost of necessary repairs to the motor and the car are added, automobiling becomes an expensive pastime.



NORTHWEST DEPARTMENT

Devoted to Sport in Washington and British Columbia. Conducted by F. M. Kelly.

"But, up to the mountains!
This is not hunter's language:—he that strikes
The venison first, shall be lord of the feast."
—CYMBELINE.

AS FAR as the hunter-men are concerned (they who obey the laws, by the way), no venison will be struck for several moons to come; the "lightning-sticks" repose in hardwood cabinets or on the walls of cozy dens, where their owners love to roll back the days that have been since they took those noble trophies which, too, adorn their walls, and again picture in pleasant fancies the deeds of those days spent in the wild open, the days that were full of the sweet breaths that belong only there, and which mean good medicine to all that move in the outer places; but I want to make some mention of an amendment to the British Columbia game laws, an amendment which became part of the laws of 1898, and which affects the future of deer on Vancouver Island, at least.

It seems that certain sections of the old law were more honored in the breach than in the observance, with the result that the deer family on the island of Vancouver was threatened with extinction, chiefly, it seems, because of the enormous demands made upon the graceful haunters of the woodlands for their hides alone.

Now, heretofore, the buying and selling of hides was not against the law, but exportation was forbidden; and there not being, until a short time ago, any tannery in British Columbia which handled deer hides, the dealers who bought them had them on their hands, waiting for a day—which they evidently expected would come—when they could ship them out of the Province. In February of this year there were in Victoria alone no less than forty-eight thousand hides, the result of four years' traffic (an average of twelve thousand a year), mainly taken from black-tail deer killed on Vancouver Island. Knowing these facts, one can scarcely realize that such a slaughter could have taken place and that the island should still offer the hunter (I don't mean the market variety) any inducement to put his rifle in shape and start on a few days' outing. Such an indiscriminate killing almost beggars one's vocabulary of expression, one must search long indeed for words strong enough to fitly express the indignation a true sportsman must naturally feel over such a condition of affairs and for which some persons must be responsible; for if the old law didn't prohibit the buying and selling of hides, it certainly did prohibit the methods by which the greater number of these forty odd thousand were taken. Few of them were shot in the day time, for a hide that will bring between fifteen and twenty-five cents (and a man gets down pretty low when he follows such a nefarious game for such a pittance) is not going to cause a still hunt. Far from it. Dogs were used, pits were made, deadfalls were set up, torch-shooting was indulged in—anyway, in fact, where labor would not be necessary. In my trips over the northern parts of the island, I have run across hundreds of deadfalls and numerous pits; and often at night I have heard the guns bark, telling me of a too-curious black-tail weltering in its death agony by the bank of lake or river.

That things will be different now, we hope; for the amendment strictly prohibits the buying and selling of deer skins on Vancouver Island. Section 3 reads: "It shall be unlawful at any time to kill, except for actual use, on Vancouver Island, to buy or sell any deer, or any portion or part of a deer, either dead or alive, or the skin or hide of any deer, and it shall be unlawful to export from British Columbia any deer or skin or hide of any deer."

As will be seen, the amendment is limited to Vancouver Island, the mainland not being included. The amendment was introduced by Mr. Hawthornwaite, member for Nanaimo, who would also gladly have included all of the immense territory now left out. But that the members from the mainland would not agree to. Let us hope that they will see the errors of their way ere long and bring around such enlightened legislation as will tend to conserve one of the best assets a province or country can have. Makers of laws are not all sportsmen, they do not all feel as the true sportsman does about the game question; they, not being educated, have no desire for a still hunt when Nature is in her most benignant mood, when the free air of the wild places pumps through the lungs of man and beast. They can not realize, I have often thought, what it would mean should the denizens of upland and forest become extinct, nor what it is costing game-depleted States to refurnish their woodlands.

As things are now, black-tail deer will have half a chance to increase; but what of the island wapiti, the most noble animal that our grand American forests know? Very few remain on Vancouver Island, and they are surely decreasing. Owing to the long open season (four months), it can only be a question of a few years when their memory will be all that is left to us. The new amendment makes it lawful, however, for the "Governor in Council, on good cause shown, by proclamation in two successive issues of the *Gazette,* to declare a closed season for deer, elk, wapiti, moose, caribou, beaver, mountain sheep and goats, or any one or more of same, in any part of the Province, for any period of time."

The fish also received some attention in the amendment referred to, as follows: "It shall be unlawful at any time to take, catch, kill, or have in possession any trout of any kind or species, under the size of six inches in length, and it shall be unlawful to take, catch, kill, or have in possession any trout of any kind or species, except steelhead trout (*Salmo gairdineri*), between the fifteenth day of November in any year and the twenty-fifth day of March in the following year; and it shall be unlawful to take, catch, or kill any steelhead trout (*Salmo gairdineri*) above tidewater between the fifteenth day of November in any year and the twenty-fifth day of March in the following year.

Apropos of fish and fishing, ere this issue leaves the printers' hands, the click of reel and swish of line will have been heard by lake and stream through-

out this vast Northwestern country; and more than one big-fish story will have been recounted to appreciative coteries who worship at the shrine of one Walton of delightful memory.

Wouldn't it be splendid if we could but have a day or two of retrospection—retrospection of such subtle and practical force that we would be carried back to the days that were, when we trudged, oftentimes barefooted, miles and miles to woo the speckled beauty from its stone-shrouded lair, deep in the darkness of some swirling pool. Landing a four-pounder in unction now, but 'tis not of the same degree as it was wont to be in those other days, when our lines were not of silk, and our hooks, often minus the barb, were gutless. How eager we used to be, striving to get the first baited hook wriggling in the silence of the shadows low beneath the foam-flecked surface; and how that old pole, which was cut by the stream's side, used to buckle after the fish had been struck; and how excited we would be until the fish, landed on the bank, was safely clutched in our hands! Those were wondrous days, my masters, for their magic lingers with us yet; but alas! retrospection is not practical enough to give use the living of a day or two as we lived them then.

* * *

"What a fish!" excitedly broke from between Jack's lips, as he stood, waist-deep, in the waters of the Cowichan River, where he and I were trying our skill with a fly last season. Something was on the other end of his line, something which had a good grip of the water, and which had taken the fly even as it struck the water for the first time, and before I had made a cast. I stood and watched him, enjoying the sport almost as well as he seemed to be enjoying it. "There are a few pounds there," he then called for my benefit, as he continued to play it.

"Probably got your line foul of a swaying limb," I suggested sarcastically; "You haven't seen the fish since it was struck." Which was true, for it hung to the under-water; but though I felt it was something worthy of his mettle, I couldn't very well say anything else, for I knew he already had it, in his mind, twice the size it would really prove. So at last, when it was floundering in the grass back from the water, and while he stood admiring it, something like the following was said:

"About two pounds, I should judge," was what I remarked.

"Two pounds! Great heavens," said he, "your judgment is growing worse with regard to the size of fish; 'twill double that."

"Split the difference," said I; "call it three."

"Not an ounce less than four," he replied. "If it doesn't go that, it won't go a pound."

I knew he was a little out, but he had to consider it somewhere near what his imagination had weighed it while it was being played to its death.

How the size of a fish will shrink in another's eyes; but 'tis a wise fisherman who can judge the weight of his own catch.

* * *

From Manitoba comes advices of a hair-raising adventure, proving that the frontier is still with us. One Alex Morrisey of Turtle River, near Dauphin, Manitoba, tells the story. While crossing Round Lake, an arm of Lake Manitoba, and while at a considerable distance from the shore, he was surrounded and attacked by twelve or fifteen ferocious wolves. At the time, he had with him two hounds and an adze, and had it not been for these, there is no doubt but that he would have been torn to pieces. The hounds fought hard, and one of them was killed in the encounter. Morrissey claims to have done great execution with his adze, and more than one wolf bit the ice while others were badly wounded. The track on the ice from where the attack commenced to the shore is described by Morrissey as a trail of blood. When he reached land, exhausted, he sought the protection of a friendly tree, and remained there till the wolves departed at night.

* * *

In February, two duck hunters of Port Townsend had a narrow escape from a watery grave. They are Fred Currie and Phil Chase, residents of that place, and had left town shortly after noon in a Whitehall boat, bound on a hunting trip across the bay. The wind was high, and the boat was capsized. The men succeeded in climbing onto the keel. They were seen from the Queen as she was making a landing, and Captain Cousins headed out in the bay, lowered a boat, and rescued the men. They lost their guns and ammunition.

* * *

Ducks were reported plentiful from all sections of this part of the country during the season which has but lately closed.

* * *

From a dog fancier's standpoint, much has been doing in these parts since the delegates of the Pacific Kennel League met in Seattle for the purpose of deciding questions which vitally affect the welfare of all league clubs in the West, chief of which was whether the Coast would continue to maintain an independent organization or again affiliate with the American Kennel League.

The full text of the conditions of amalgamation, which were forwarded to Secretary Vredenburgh, New York, is as follows:

"That the American Kennel League recognized all wins heretofore made by dogs under the Pacific Kennel League rules, including those wins under the Canadian Kennel Club's rules in British Columbia, which have been recognized by the Pacific Kennel League.

"That the Pacific advisory board shall consist of one delegate from each club which is a member of the Pacific Kennel League, together with the members of the said board now acting under authority of the American Kennel Club.

"That the Pacific advisory board, as above organized, be empowered with full authority to arbitrate and regulate the internal affairs of the Pacific Coast clubs; that its findings in the event of an appeal being taken by an exhibitor be absolute and final.

"That each club be empowered to elect its own member to such advisory board, and that each member of the Pacific Kennel League, as now constituted, shall be entitled to one representative on such advisory board, to be elected as herein provided.

"That these conditions are not subject to change or revision, and must be accepted or rejected as a whole by the American Kennel Club."

* * *

The last parlor show held by the Victoria Kennel Club was a great success. The attendance was most satisfactory, and the judging was closely followed by those who attended. Competition in all classes was very keen, each being well represented. Dr. G. L. Milne judged the cocker spaniels; W. Hodgson, the terriers, and F. Turner, the miscellaneous class. Silver medals went to the following:

C. A. Goodwin, for best cocker in show, won by Little Dorrt.

Mrs. J. J. Bostock, for best fox terrier in show, won by Remson.

Special for best Irish terrier in show, R. E. Hanson, won by Nailer.

Special for best collie in show, J. McIntosh, won by Prince.

Special for best in miscellaneous class, S. Creech, won by Irish setter, Nellie.

Special for best in miscellaneous terriers, Miss E. Turner, won by Dave, Bedlington terrier.

* * *

Charles Minor lately lost a champion dog, Roy Montez, which died from the effects of arsenic poison.

For the past five years, Roy carried off everything at the Pacific Coast shows, and on one occasion met and defeated the best setters of the world at Chicago. He held the championship of Canada under the Canadian Kennel Club rules (1901), and the championship of America under the Canadian Kennel Club rules (1901), and the championship of America under the Pacific Coast Kennel Club rules (1902). It was Roy who first gave Victoria a name for the breeding of blooded canines. Besides the above mentioned championships, Roy won twenty-five first prizes, and was successful in carrying off the special for the best English setter at the Seattle show for three years in succession. He had been judged by the most experienced men of America and awarded the blue ribbon. Roy was the sire of Rex Montez, which won the special for best puppy both in Victoria and Seattle last year. He was also the sire of Roy's Lady, which captured first prize in the Derby field trials held at Steveston, B. C., 1903, and was also the sire of Young Roy, owned by Miss Davie, which captured a blue ribbon at eight months of age.

* * *

The Vancouver Kennel Club hold their big open bench show on March 31st, April 1st and 2d, a show which gives promise of splendid returns. The prize committee report that twenty-five silver cups have been donated, including five received by the secretary, George J. Dyke, from dog fanciers in old England. A cup which will be among the most desired trophies has been received from the Governor-General of Canada, Lord Minto. It will be for the best English setter, to be won three times by the same exhibitor before becoming permanent property. The Lieutenant-Governor of British Columbia has also offered a silver cup under the same conditions for the best cocker spaniel in the show.

The official judges will be J. S. Williams, a former president of the American Kennel Club, and a well-known authority on all classes of dogs, and E. Davis of Dewdney, B. C.

It is estimated that there will be over four hundred dogs entered, as letters have been received from all quarters making inquiries and promising support.

Dogs during the past winter have been scarce in the North, the market there being very unsteady. At times dogs were almost unattainable, the prices for anything that looked like a dog being away up, owing to the demand for them in getting to the new gold fields of the lower Yukon and to Alaska.

* * *

Although January, February and March are not the most attractive months for outdoor sport, tennis has been attracting considerable attention at the University of Washington, and every afternoon finds a goodly number enjoying the game. The faculty have two good courts, which are excellently drained and can be used at any time in the year. Different clubs have courts which, as a rule, are kept in fairly good shape. The young ladies are also the possessors of two courts; while it is the intention of the students in the senior law school or class to put in a court which will undoubtedly be one of the best on the campus.

* * *

There is not much moving in yachting circles just now, but the end of April will see the vanguards of the fleets hereabouts under canvas.

* * *

The annual convention of the League of American Sportsmen will be held in Seattle this year, and the people of Seattle will have the honor of entertaining delegates of an organization that stands for the good of all that is clean in sport and for all that is worthy in the furtherance of game preservation. That they will be made at home in Seattle, that they will enjoy their stay there, goes without saying; for the citizens of the bustling city on the Sound, that they will enjoy hospitalty, and when they start out to make things pleasant for the stranger within their gates, there is no such thing as a limit set. Some day we'll hear of Seattle wanting a convention of Martians, and when that time comes—well, if she don't get them, we'll be surprised, for she generally gets what she sets her heart on.

H. L. Betten, Editor.

"The poor dog, in life the firmest friend,
The first to welcome, foremost to defend,
Whose honest heart is still his master's own,
Who labors, fights, lives, breathes for him alone."
—Byron.

THE TRAINING OF THE FIELD DOG.

No. 11—Correction of Faults.

PROBABLY the most aggravating fault acquired by a field dog is gun-shyness, or fear of the report of a gun.

It is hardly an exaggeration to say that fully 25 per cent. of well-bred pointers and setters exhibit this fault to a greater or less degree, and it is especially prevalent among high-strung nervous dogs.

In many instances gun-shyness originates through some act of folly on the part of the owner or handler; but as a rule the dog which acquires this fault is one of an extremely nervous disposition, one which is easily frightened by anything of an unusual nature, and only the most careful handling by an expert will serve to bring about its thorough development without a trace of this undesirable trait.

GUNSHY!

Hereditary gun-shyness has been dwelt upon by so many writers that it is with some trepidation the writer expresses his belief that it is entirely a myth, and that puppies are never born with such an inheritance. It is true there are vague grounds for such a belief, owing to the fact that the offspring of gun-shy dogs have often shown what appeared to be an inherited fear of the gun, but the searchlight of reason doubtless would have revealed that the progenitors of these gun-shy puppies possessed highly nervous temperaments and were readily panic-stricken by any noise or incident of a terrifying or unusual nature. This lack of level-headedness inherited by puppies from their parents has been responsible for many absurd stories which have no foundation in fact, and the assumption of some inexperienced would-be scientist, who airs his opinions without tangible proofs, cinches the belief with many that puppies may inherit a predisposition to gun-shyness.

It is customary for the average amateur to put an untried puppy to a severe test by firing a gun in proximity to him on the first occasion that offers. As a rule he imagines that the closer the dog the more convincing the proof, and he is right in his deductions. In about 50 per cent. of cases he has developed gun-shyness in his dog at a moment's notice, the eradication of which may take months of patient application on his part, and yet he is inclined to place all the blame on the dog. Had he gone about the test in a rational manner he might have acquired a knowledge of the puppy's sensibilities without arousing unreasoning fear, and could then have proceeded along lines which would have given the best of results.

The most satisfactory manner in which to apply the test for gun-shyness is to take the puppy a-field and allow him to range freely. Then, at a moment when he is interested in chasing larks or small birds, and when several hundred yards distant, you should fire a shot from a revolver and quickly tuck it under your coat while you walk on unconcernedly and note the demeanor of the dog. If he crouches tremblingly or slinks away from you or toward you you may infer therefrom that you have a serious case on your hands, but if on the contrary he continues to hunt without paying any attention to you it is more than likely that by carefully graduating the distances at which the shots are fired, and by using discretion in discharging the gun or revolver only when he is interested in hunting and is not watching you, there should be no difficulty whatever in accustoming him to the report of firearms without the development of gun-shyness.

The best plan to pursue with very young puppies when accustoming them to the reports of firearms is that mentioned in a previous article, viz.: Fire a shot at some distance from the kennel yard, and immediately thereafter make your appearance with the food. In proceeding thus it is also possible for you to have some other person fire the revolver while you note the impression made upon the puppies by its report. By gradually decreasing the distances at which the shots are fired you may accustom youngsters two or three months old to the report of firearms, and having learned from infancy that the noise presages nothing worse than the infliction of a meal upon

A CLEVER WORKER.

HARD AT WORK!

them they soon become inured to it and even wait for the report with some degree of pleasant anticipation. Eventually the revolver can be fired in their midst and if you have been discreet in your handling of firearms it is hardly likely that more than one puppy in ten will slink away and hide from fear of the noise. Where they do so, it is possible by making use of heroic measures, to effect a ready cure in this wise: When you note that a puppy slinks away when a shot is fired, place the food before the others and allow them to eat while you stand back a short distance and wait for the return of the flincher. Should he venture forth you can fire another shot just as he reaches a feed pan, and if he rushes back to a place of safety the pans should be removed before he has an opportunity to secure food. Allow him to go without a meal, and when feeding time again arrives go through the same proceedure until he will remain with the rest of the puppies, when a shot is fired in close proximity. The chances are that, after he has gone without two or three meals and the pangs of hunger make him bold, he will reason thusly: "Here I am, the only puppy in the bunch which seems afraid of that noise, and while I am hiding in here the rest are filling up on nice feed. I've sized them up after they got through, and none of them seemed to suffer from the effects of that noise, whatever it is. Darn it! I'm getting awful hungry—in fact I'm almost starved! And every time I run away and hide the feed vanishes before I can sneak out and get a chance at it. Dinged if I aint getting desperate and the

"ALEC C." (J. E. LUCAS.)

next time the pans are put down I will stay long enough to get a few mouthfuls." Once the puppy carries out this resolution you are almost certain to effect a cure, and while the methods are somewhat strenuous it is sometimes advisable to resort to them instead of spending two or three months in the field endeavoring to bring about gradual improvement.

Of course there are cases which, owing to the lack of mentality of the victims, are well nigh incurable, but few instances are recorded where the resorting to proper methods in aggravated cases resulted in failures. It is always well to remember the old saw: "An ounce of prevention is worth a pound of cure," and regulate your acts accordingly. You must not consider that because your dog shows no fear of the gun in the kennel yard that he will not exhibit gun-shyness in the field, when the laws of common sense are abused in a thoughtless endeavor to bag birds over an inexperienced puppy's points. If you have any doubts as to the decidedly unpleasant results produced by ill-directed shooting, just have a friend shoot over your head while you are kneeling eight or ten feet distant. You are supposed to possess reasoning faculties of an order higher than the dog, and know that you will not be harmed, nevertheless you imagine that a position behind the gun would be more to your liking. Substitute the puppy in your place and it should not be any great cause for wonder if he, too, sought a position in the rear and remained there during the balance of the day. Boisterous language employed while you are shooting, combined with the noise of the gun, may also be too much for the dog's nerves, and through fear of the former and its seeming connection with the report of firearms he may develop a dislike for shooting as well.

Owing to the wide divergence noted in cases of gun-shyness it is not possible to treat all alike, as what may tend to effect a radical cure in one instance only serves to aggravate the case in another. Discouraging individuals are often met with and yet cures will sometimes be effected at short notice in these when a seemingly mild case may extend over months. I can recall several instances in my own experience when quick cures were effected in individuals given up by others as hopeless simply by taking advantage of propitious opportunities to shoot birds in such a manner that they dropped and fluttered directly before the dog. The same applies to shooting rabbits ahead of a gun-shy puppy for the excitement of the chase will be strong enough to cause the average youngster to rush in and worry the game, and as he derives pleasure from this and notes that it is only when the gun is fired that he receives such opportunities, he is apt to overlook the report altogether.

It is worse than useless to punish a dog for gun-shyness, as such a course simply augments his fear. If the case is a troublesome one the best plan to pursue is to pay no attention whatever to the dog as long as he stays close at heel or ranges ahead and does not run off and hide when the gun is fired. If possible work him with a steady old dog which is fond of retrieving and kill an occasional bird, making much of it when brought in and allowing the gun-shy puppy to mouth it if he feels inclined. If he tries to bolt when a shot is fired you may attach a check cord to his collar and thus keep him in hand, or if working on scattered birds on level ground with low cover, he may be coupled with another dog and the lack of fear exhibited by his bracemate will gradually arouse his courage.

THE TREATMENT OF PARASITIC SKIN DISEASES IN DOGS.

There are a number of skin diseases which owe their primary existence to the presence of parasites. Among these are the common or sarcoptic mange, which is due to the inroads of a devilish microscopic animal parasite known as the *acarus,* which burrows through the layers of skin and causes the most intolerable itching, and follicular mange, which is commonly known to many as red mange, and which is also a parasitic disease and highly contagious. *Favus,* and "ringworm" are also due to the ravages of parasites and it is believed by some authorities that *erythema* is also due to the same cause.

The symptoms of sarcoptic mange as described by Ashmont in his valuable work, "The Diseases of Dogs," are as follows: "Vesicles in sarcoptic mange predominates over any other form of eruption at first; they occur alone and are not grouped together as in eczema; again, they are pointed, not flat or rounded like those of the last named disease. After eczema has been produced by scratching the difficulty of diagnosis is increased but only slightly so, for new vesicles will constantly appear on previously unaffected skin."

Follicular mange is distinguished from the above by the following symptoms: "The hair follicles first become inflamed and the skin in proximity is infilirated, hot, red and tumefied; a few pimples or papules are then to be detected. The hairs from the affected follicles soon fall out and exudition into the sacs occurs which becomes purulent and pustules result. The pustules, which are flat and run together, soon discharge their contents and scabs are formed. These harden, crack open and bleed slightly. The eruption extends rapidly and soon the disease can be traced in its varying stages."

When the eruption first appears a diagnosis is by no means easy, but the hot, tumefied condition of the skin and presence of pain rather than itching should aid the owner in differentiating between follicular mange and eczema or sarcoptic mange, the two diseases with which it might be confounded. Follicular mange is a curable disease but does not yield so rapidly to treatment as does the other form, and unless the owner perseveres and applies the remedies with unfailing regularity until a thorough cure is effected traces of the disease will always be prevalent and fresh outbreaks may be looked for at any time. Constant changing and disinfecting of quarters is demanded and where a large number of dogs have become affected it is a most difficult disease to eradicate.

Favus is a form of ringworm which shows itself by the formation of yellowish crusts similar to those which appear in ordinary ringworm. These crusts have a musty odor and leave a deep depression when removed. They do not grow in extent as much as do the crusts which appear in ordinary ringworm. The latter spreads quite uniformly on the outer edge and usually attacks the skin over the elbow joints or other prominences which come in contact with the floor or infected spots.

In connection with this article it might be well to mention dog lice, which, through the constant irritation which causes the dog to scratch and gnaw his skin in an effort to rid himself of the troublesome pests, give rise to a form of eczema often mistaken for mange. These generally fasten themselves to the ears and head although they spread to various parts of the body and cause a great deal of annoyance. The treatment recommended for use in cases of mange or other parasitic diseases is just as effective in destroying lice.

The most efficacious remedies for parasitic skin diseases are those which have an oily substance as a basis as they can readily be worked into the skin and pores and will penetrate as deeply as do the parasites. There are perhaps fifty different combinations of various ingredients efficacious in the treatment of parasitic diseases which may be used to advantage, and unless a troublesome form of eczema is present it is generally an easy matter to effect a cure in the earlier stages. The following combinations have been used with the best of results by the writer or by experienced fanciers, but it must be remembered that a complete cure can not be effected unless all traces of the parasites are destroyed not only in the dog but in the kennels or yards he occupies. The premises should be thoroughly disinfected with a strong solution of crude carbolic acid, creolin, Phenyle or other powerful disinfectant having carbolic acid as a basis. A thorough scrubbing with boiling hot water is also efficacious and quicklime may be strewn in all the crevices, after which a coat of whitewash containing a heavy percentage of creolin should be applied wherever possible. Do not return the dog to disinfected quarters until the treatment has been applied, as otherwise it will be necessary to disinfect them at regular intervals and the parasites will remain present either on the dog or in his sleeping quarters, and it will be next to impossible to thoroughly eradicate them.

No. 1.

Flowers of sulphur, six ounces.
Lard, one quart.
Balsam of Peru, two ounces.

Apply in a thorough manner (rubbing well into the skin) for four consecutive days, then give a warm water bath. Cottonseed oil may be substituted for the lard as the mixture will then be easier to apply.

No. 2.

Oil of cade, three ounces.
Dilute acetic acid, two ounces.
Carbolic acid, one dram.
Cottonseed oil, one pint.

No. 3.

Oil of tar, six ounces.
Alcohol, four ounces.
Crude petroleum, two ounces.
Whale oil or cottonseed oil, eight ounces.
Balsam of Peru, one ounce.

No. 4.

Oil of tar, two ounces.
Sulphurous acid, one ounce.
Oil of turpentine, one-half ounce.
Balsam of Peru, one ounce.
Cottonseed oil, one pint.

No. 5.

Oil of tar, four ounces.
Sulphurous acid, two ounces.
Oil of cade, one ounce.
Boracic acid, two ounces.
Balsam of Peru, two ounces.
Cottonseed or whale oil, one quart.

No. 6.

Creolin, one ounce.
Flowers of sulphur, two ounces.
Boracic acid, one ounce.
Balsam of Peru, one ounce.
Cottonseed oil, one pint.

These remedies should be applied in a thorough manner for three or four consecutive days, when the dog should be given a warm water bath with a liberal use of castile or other non-irritating soap. Repeat if necessary. Should there be any scabs or pustules remaining on the dog's hide it is advisable to use a combination of equal parts of carbolic acid and Canada balsam, touching each spot with a drop or two of this mixture, care being taken so as not to injure the healthy skin.

The above are effective but greasy remedies and possess rather disagreeable odors. Should such be wholly objectionable to the delicate olfactory senses of the fancier he may resort to the use of washes which, however, are less rapid in effect and must often be persistently applied in order to accomplish the desired results.

No. 1.

Creolin, one part.
Water, forty parts.
Apply daily with a sponge and allow the dog to exercise freely in the open air. Apply in the warmest part of day.

No. 2.

Sulphurous acid, one part.
Water, eight parts.
Apply as above.

No. 3.

Carbolic acid, four drachms.
Water, one quart.
Apply as above.

No. 4.

Flowers of sulphur, two pounds.
Unslacked lime, one pound.
Water, two gallons.

Boil this down to five quarts and allow it to stand until the sediment has settled when the clear liquid may be poured off into bottles or jars. Apply daily as advised in No. 1, giving a bath every fifth day. If vesicles or pustules are noted touch them with the carbolic acid and Canada balsam mixture.

It is well to remember that in long standing cases it is impossible to effect ready cures and treatment must be persisted in for a considerable length of time. In such the use of a blood purifying remedy if often demanded, and some of the patented medicines placed on the market by reliable veterinarians for the above purpose may be used in conjunction with the local application. Fowler's solution is used by many fanciers but in the hands of any but an expert is more apt to work injury than benefit.

BENEFITS DERIVED FROM FIELD TRIALS.

The average fancier of field dogs who is not a patron or attendant of field trials can hardly be made to realize that this form of competitive sport has been responsible for the elevation of the class of our setters and pointers.

That field trials have been of incalculable benefit in the development of the highest type of field dogs is a fact conceded by all who have made an exhaustive study of the subject at hand, and just so long as patrons and judges realize the primary object of these competitions they will aid us in bringing to the front individuals best suited to perpetuate their kind.

Field trials were not inaugurated for the purpose of exhibiting to the public a class of dogs, eminently suited to the wants of the every-day shooter, whose primary object in using a dog is in many instances that he may be aided by the latter in securing the largest possible bag, irregardless of the style or manner in which such a dog performs.

In the opinion of the average spectator who views field trials for the first time the rating of the dogs depends entirely upon the number of points scored, and in his estimation the dog which scores ten points is a better performer than another which scores but five points. This conclusion is arrived at without a thought as to the divergent conditions which may have obtained during the competition, and which rendered the scoring of five points by one dog a more meritorious performance than the scoring of ten or even twenty points by another favored by conditions, and the greater number of advantageous opportunities to find and point birds. Furthermore, a really high-class dog must exhibit other desirable qualities besides the mere ability to point birds.

The primary object in holding field trials is to bring to the notice of the public those individuals which possess, aside from desirable and prepotent blood lines, the traits and natural qualities we wish to perpetuate in high-class field dogs, viz.: Speed,

range, courage, stamina, style, bird sense, olfactory powers of a high order and conformation such as will enable a dog to run fast with the least possible exertion. We want our ideal field-trial dog to possess great speed so that he may cover a large amount of territory in a short space of time. We desire him to range wide and possess bird sense to the highest degree, so that he may go to the likely spots within a reasonable distance—which may be several hundred yards or a mile, according to the nature of the country we are hunting over—and the species of game bird we are pursuing. He must exhibit style which is a quality peculiar to the dog which is graceful in his actions in the field. Courage is another requisite, for unless the dog possesses this quality he will be inclined to stop work as soon as he is the least bit fatigued, and will be of no further use to the sports-

McDaniel, Photo. 1904 FIELD TRIAL GROUP AT GOSFORD'S RANCHE.

mentioned requisite, as the dog which is physically weak can not run on an equality with one whose powers of endurance are greater and which is his equal in all other respects no matter how great the former's courage may be. (Nature limits us to certain capabilities and beyond these we can not go.) His olfactory powers must be of the highest order so that he may be able to determine between foot scent and body scent and work with rapidity and precision when on birds. His conformation must be such that he can move without friction, for unless this is the case he will consume too much energy running at high speed and his efforts will soon tire him.

These are the qualities we look for in the high-man until he makes up his mind to hunt of his own accord. Stamina goes hand in hand with the last class field-trial dog, but a combination of such in a field dog would not suit the average sportsman who is not a patron of trials. He considers that such an animal runs too fast and ranges too wide for his purposes. Furthermore, he seems too wild and hard to control. Taken all in all he is not *his* kind of a dog, and he would not shoot over him or take him as a gift so far as making use of his services are concerned. He argues that if the object of field trials is to develop such a dog and place him on a pedestal he is absolutely certain that the average sportsman is not benefited an iota by field trials, and can not see what there is about the competition which would interest sportsmen of his class.

The trouble with our friend and with many others (among them patrons of trials) is that they have lost sight of the purpose of developing just such dogs. It is conceded that the ideal field-trial dog conforming to the standard of excellence required by the so-called "class" judges would not suit the average upland shooter, but such a dog as the above described is not developed every year and, when bred too extensively, it is found that very few of his get inherit their sire's great "quality." Outside of a few puppies possessing the characteristics of their progenitor the progeny grade down to the most ordinary performers—in fact some of them will be "duffers" and not worth training. The intermediate grades will show all classes of performers, for there is always a tendency toward deterioriation. Take for instance the get of some great trotting or pacing stallion, possessing a record close to two minutes, and attempt to produce his equal from mares of approved breeding. In how many instances would you

succeed even if he prove to be a sire of prepotent qualities? Would they not grade down from horses which closely approached, or perhaps in a few instances excelled, their sire's record, to those which could not trot or pace a mile in three minutes? Such being the results from the use of a stallion possessing great speed and prepotency how could you hope for satisfactory results from the use of an individual possessing inferior qualities? Choose a horse of slow pace and average breeding (one scarcely able to excel a mile in three minutes) and mate him with mares of the same general characteristics and what would be the result? Would you look for the two-minute trotter from such progenitors, or even for offspring capable of taking a record of 2:30? Admitting that your ideal trotter is one which can just about equal a mile in 2:30, would you look for him from parents incapable of exceeding a mile in three minutes; or would you choose a stallion possessing a record of 2:10 or better, taking chances on the foal grading down? Invariably the wise breeder would choose the latter course, for if it possessed speed in excess of the above conservative limit there would be little difficulty experienced in keeping it in check. The same applies in a lesser degree to the field dog, for as an experienced fancier expressed himself, "You can always find a way to take the 'go' out of a dog; but confound it you can't put it into him if it ain't there in the first place."

It is only in rare instances that like produces like, and outside of these isolated cases the tendency is toward deterioration. The elevation of a breed of animals can only be accomplished by the most careful selection and mating of individuals, but retrogradation is secured without effort. If it were only a matter of mating like and like to produce like the world would be full of great men and genius would be at a discount. Such results have not yet been obtained.

Field trials are held for the purpose of bringing to the front those dogs which possess the highest natural qualities and their purpose is defeated when these are made subservient to training. This latter is merely an artificial accomplishment and has no direct bearing on the desirability of a dog as a progenitor of his kind. The veriest duffer may be the best trained dog brought to notice during the running of the trials, but to place him over a dog of high-class natural qualities simply because the latter commits a few breaches of training etiquette in no way bearing upon his inherited qualities (which are all we can perpetuate in the dog) is defeating the purpose of trials.

When you attend an exhibition of competitive sport your attention and interest is attracted most by those events which bring out the greatest display of speed or science. Naturally you would be more interested in a hundred-yard dash between college athletes, all capable of excelling a record of eleven seconds, than you would in one which brought out only Falstaffian runners possessing the speed of the proverbial ice wagon. When attending a trotting horse meet the events which attract most attention are those which bring out the fastest and consequently the most noted performers, and the same may be said to a certain extent of field trials. The dog possessing the greatest individuality is the one which attracts the most attention from the field-trial enthusiast and he is the one most likely to benefit his breed. Who would be thoughtless enough to say that the trotting horse has not been benefited by competitive public tests and the incentive to breeding which has resulted therefrom? And yet the same applies to field trials. Fanciers have spent thousands and thousands of dollars in securing the best individuals and a vast sum has been expended in preparing them for competition. Field trials have attracted the attention of a great mass of sportsmen because they offer competitive sport of the cleanest nature. The entire absence of gambling, which has contaminated so many other recreations, commends it to all, and the exhilarating exercise and congenial surroundings attendant to participation in field trials serves to make it one of the most fascinating of sports.

To the man of wealth suffering from ennui or lack of means whereby to partly distract his attention from the sordid occupation of money-getting and its ravages of his health, the breeding and running of field-trial dogs is a means of diversion which often comes as a Godsend. The expense attached to the maintenance of a kennel is but trifling when compared to the expenditures consequent upon the breeding and running of a stable of horses, and results are obtained so rapidly that the fancier is greatly interested at the very inception. Starting with the purchase of one or more Derby prospects and a few highly-bred bitches which he breeds to sires of established reputation, the fancier soon has an opportunity to test his judgment in the selection of stock. The development of his young dogs and the rapid growth of his puppies attracts his interest and week by week he watches their advancement. In place of one foal resulting from the mating of a high-priced mare with a high-priced stallion, he secures a litter of puppies at nominal expense, and while some of these may succumb to various diseases he is sure to have enough left to prevent his project from becoming a failure, and almost before he knows it they arrive at the proper age for development. From then on he is afforded an absorbing character study as the puppies' various traits are brought out in training. The study of pedigrees also interests him and soon the breeding and development of high-class field-trial dogs becomes a fascinating hobby.

The man of moderate means finds just as much or perhaps more pleasure than the wealthy fancier in the breeding, development and running of field-trial dogs. Circumstances may limit him to one or two entries but nevertheless he is interested in his futurities and when they are cast off in competition he may rest assured that popular opinion will award him all that is his due, and that the dogs will be judged strictly on their merits. Field trials may be said to be one of few sports where the spirit of democracy prevails, and the man of moderate means can meet the millionaire on terms of social equality. It is a sport which recognizes no castes, and as long as the fancier exhibits the instincts of a gentleman his presence will be welcomed by all alike.

Field trials are interesting thousands of new fanciers annually and with the formation of a circuit of trials, which will be consummated upon the organization of a field-trial club in Oregon, we may hope to see vast benefits accruing to the interests of the field dog on this coast. New kennels are springing up and new blood is constantly finding its way to this slope, so that even at the present writing we have strong infusions of the very best lines of breeding in America. Our best performers are rated by competent judges as equal to any in the United States, and the records in Eastern competition of Ch. Senator P., Ch. Peach Blossom, Cuba Jr., Petronello, Sports Destiny, Clipper W. and Dr. Daniels bears out their encomiums.

And meanwhile the scoffer of trials asks: "How am I benefited by all this and why should I be interested in trials?" In answer let me say: It is for this reason: The surplus stock finds its way into the hands of the scoffer and he, not being familiar with its source, swears by it. The blood of our field-trial dogs will eventually find its way into every section of this coast and the entire fraternity of field dog fanciers will be benefited thereby. Even to-day it is impossible to submit the pedigree of a thoroughbred pointer or setter of good quality which does not contain the names of a number of field-trial winners, and it is safe to wager that the animal inherits its best qualities from such ancestors.

NOTED POINTER SIRES.

No. 5.—Plain Sam.

AS A SIRE of combined bench and field-trial winners Plain Sam stands without a peer among pointer sires, as is shown by his record, which includes some sixty winners of which Brighton Joe, Nellie Wilson, Sam's Bow, Joe Handy, Blacksie, Sam's Lad, Eve's Son, Teddy Roosevelt, Sam's Hal, Okaw Valley, Tioga Sam, Plain Sam Jr., Sam's Mars, Dr. Daniels and Sam's Vesta are field-trial winners.

The conformation of the majority of Plain Sam's get is of the racy type, strong in pointer characteristics; and his blood lines, while they exhibit a double infusion of King of Kent's, are still of the very best, and such inbreeding as exists is to the most prepotent individuals so that no deleterious effects have been noted.

Plain Sam is by Hal Pointer (King of Kent-Daisy) out of Kent's Star (King of Kent-Babe Graphic), and is himself a winner in trials. King of Kent, as has been noted in a previous article, is by Ch. Priam (Young Bang-Teal) out of Kent's Baby (Statters Pax-Prices' Climax). Daisy is by Ch. Bang Bang (Price's Ch. Bang-Princess Kate) out of Zanetta (Sensation-Clymont.) Babe Graphic is by Ch. Graphic (Bonus Sancho-Fursdon Juno) out of White Rose (Bracket-Rosa), all of which represents the very best of pointer blood.

THE SANTA CLARA COUNTY KENNEL CLUB.

Within the new year this club was started, and great progress has been made in the short time of its existence. The list of members now numbers over sixty, and it is expected to exceed one hundred by the time of the first annual show.

The Santa Clara County Kennel Club is a member of the Pacific Kennel League, and has secured April 28, 29 and 30 as dates for their first show, which will be held in Turn Verein Hall, San Jose. It is conveniently located, and will afford comfortable quarters for the dogs.

The premium list is out, and will be mailed on request. There is a large classification, and the list of special prizes a long one, there being over thirty trophies in silver, cut glass, copper or pewter, and a similar number of valuable merchandise specials. Besides the club offers a neat silver medal for first prize in each class, the same in bronze for second, and a diploma for third.

People in Santa Clara County are enthusiastic in regard to the show. There promises to be a large local entry. Added to this will be the string of twenty-five or thirty dogs promised from the northern clubs in British Columbia, Washington and Oregon, and the usual large representation from San Francisco and Los Angeles. The people of San Jose will have an opportunity of seeing one of the largest shows ever held in the West.

The benching, feeding, and disinfecting of the show will be done by Spratt's Patent Limited, under the personal supervision of Thomas Banks, their Pacific Coast manager. This insures a neat and clean show. P. H. Browning is the club's official veterinarian. He will inspect the dogs as they arrive and look after their health during the show's duration. Mr. John Bradshaw of San Francisco will judge fox terriers, and Mr. Frank T. Turner of Victoria, B. C., all other breeds. Both these experts are well known for their good work in connection with dogs. They have had years of experience and should have the support of the public on this occasion. The entrees for the San Jose event close positively on April 21, with the secretary, Miss Della Beach, 955 S. First street, San Jose, Cal., to whom all communications should be addressed.

OLD ENGLISH SHEEP DOG CLUB.

A meeting of the admirers of the old English sheep dog was held in New York on the eighteenth of last month at which the "Old English Sheep Dog Club of America" was organized. The officers are Howard Gould, president; W. C. Eustis and C. B. Dillingham, vice-presidents; George K. Kirkham, treasurer; J. W. Morgan, secretary. An executive committee was appointed consisting of the officers of the club, James Mortimer, R. F. Mayhew and A. Steward. The dues are $5 per year.

Applications for membership and subscriptions may be sent to the secretary, J. W. Morgan, 308 Temple Court, New York City.

A NEW DOG CLUB.

The Russian Wolfhound Club of America was formally organized on Wednesday, February 10. A constitution and standard was adopted and officers elected as follows: Edward L. Kraus, President; John G. Kent, Vice-President; Joseph B. Thomas Jr., Secretary-Treasurer. Executive Committee—James Mortimer, Dr. J. E. De Mund, E. M. Lockwood, George Ronsse, Joseph B. Thomas Jr.

Dr. J. E. De Mund was elected delegate to the American Kennel Club.

The club organized with fifty charter members. Dues were fixed at $5 per annum, with an initiation fee of $5.

Special prices will be offered at the various shows, and every effort made to advance the interest of the Russian wolfhound.

TRAP FUTURITIES.

We are in receipt of the programmes of the Empire Gun Club and the Union Gun Club of this city, for 1904 events.

The Empire Club will shoot regularly on the second Sunday of each month and a very attractive list of prizes, trophies, etc., is hung up for this season. The club's shooting grounds are at Alameda Point and a very nice open-to-all-comers' programme of events will surely attract local trap shooters. For further particulars address J. B. Hauer, secretary.

The Union Gun Club shoot also on the second Sunday of each month at Ingleside and the programme schedules events that will certainly fill the events to overflowing. Mr. T. L. Lewis is secretary and will be glad to answer all inquiries which are addressed to him. His address is 25 Chronicle Building.

ADLETS

Advertisements of subscribers of For Sale, Wants, Exchanges, etc., will be inserted under this head at 15 cents per line for first issue, and 10 cents per line for each issue thereafter. Eight words or fraction thereof measured as a line.

Cash must be sent with order to insure insertion.

FOR SALE—Game Heads, Fur Rugs, at low prices. Prof. Gus Stainsky, Taxidermist of world-wide reputation, Colorado Springs, Colo.

* * *

WANTED—Every sportsman to know that in Montana we have plenty of big game for all. Elk, deer, sheep, bear, and a variety of small game. Can begin hunting second day out. Address A. R. Hague, guide, Findley, Mont.

* * *

FOR SALE—Pointer puppies five months old by Jingos Pearl ex Hals Glory—Hal Pointer. Ship on approval. E. E. Hiatt, Fairmont, Indiana.

* * *

KEEP YOUR DOGS in good health. Use Eureka Dog Remedies—chocolate-coated tablets—worms, distemper, etc., 25 cents. Circular on diseases mailed free. Roach Manufacturing Company, 391 Kosciusko street, Brooklyn, N. Y.

* * *

EXCHANGE—Foción Soto U., apartado 106, Bogota, Colombia, postage stamps and picture post cards collector. Exchange desired Send me your duplicates; I will send you same value in Colombian stamps.

* * *

FOR SALE—Orange and white English Setter Bitch Puppy, by Tony's Hope (Ch. Antonio-Nelly Hope), out of Princess Gleam (Noble Gleam-Lady Windem). H. L. BETTEN, Alameda, Cal.

* * *

CATALOGUE—Describing Rifles, Guns, Ammunition Reloading Tools, Lyman and Telescope Lights, Cameras, Boats, Exercises, etc.; inclose stamp. R. A. MORRISETTE, Richmond, Va., box 576.

* * *

FOR SALE—A few choice Angora Kittens from pedigreed prize-winning stock. A. J. OLIVER, 109 Lyon street, San Francisco; phone Page 4025.

* * *

FOR SALE—Eastman-Walker 5x7 view camera; reversible back, rising front, double swing, cost $32.00; Gray's No. 4 Periscope lens, cost $15.00; three double plate-holders, cost $3.00; tripod and head, cost $3.50; Low Kazoo shutter, No. 1, cost, $6.00; canvas carrying case, cost $1.50; total, $61.00; all but case in excellent condition; sell for $23.00 cash. Arthur Inkersley, 508 Montgomery street, San Francisco.

* * *

AMERICAN FIELD FUTURITIES—Fine evenly marked litter whelped Jan. 12.; sire field-trial winner, Sousa (Tony Boy-Sports Destiny), dam Fleety Hill (Oakly Hill-Sports Fleety); send express prepaid; satisfaction guaranteed; $25 each. A. H. NELSON, Berlin Building, Tacoma, Wash.

* * *

FOR SALE—Beautiful litter of extra high-class English Setter Puppies, sired by Rodfield Lad (by Ch. Rodfield), dam Victoria Belle II, by Rod S. Former litters of this breeding have been perfect field dogs requiring but little breaking and have all been bench winners, $25 each. Also a very fine large white and lemon bitch five years old by Duke-Ch. Lady Howard, by Ch. Kent II; nicely broken and perfectly staunch; a snap for $35. T. P. McCONNELL, Victoria, B. C.

WANTED—Combination billiard and pool table. Will trade fine rifles, shotgun, camera, etc., for same, or pay cash if cheap and in good condition. Address "Table," WESTERN FIELD Office.

* * *

FOR SALE—Finest Columbia Graphophone and one hundred selected records. New and perfect. Will take just half price for same. Address "Phone," WESTERN FIELD Office.

* * *

FOR SALE—Fine Eastman Folding Kodak, 5x7, complete and in fine condition. Developing and printing outfit, chemicals, etc., cheap. Refer to Editor WESTERN FIELD.

* * *

TO SPORTSWOMEN.—There are many ladies who would gladly improve an opportunity to kill bear, cougar and deer if the same could be easily and *safely* done. I am in a position to guarantee any sportswoman a shot at such large game, under conditions that will assure success and absolute safety, for a very moderate compensation. If interested, apply to the Editor of WESTERN FIELD, to whom I am permitted to refer. "HUNTER."

* * *

WANTED—Obsidian Spears and Knives, 3 to 10 inches; elegant tiny arrowheads of Oregon, Washington and California and all Western States found in the soil; Indian Baskets, Bead Work, Alaska Etchings on old ivory ornaments, fine Crystallized Minerals, Curios of the great West and Northwest, including Alaska. Write, describing what you have, with prices, to me, a dealer. L. W. STILWELL, Deadwood, S. D., Wholesaler of Bead Work and Indian Curios. To curio dealers, catalogue with prices.

* * *

FOR SALE—A fine Bullard single-shot target rifle, Swiss butt, Vernier sights, etc., extra fancy stock, embossed action. Recently recut by Geo. Schoyen from .35 to .38 caliber. Tools, etc., complete. Cheap for cash or might trade. Want a good duck boat, decoys, etc. "Gunner," care WESTERN FIELD Office.

* * *

WANTED—To correspond with any parties who contemplate a hunting, fishing or camping trip in the mountains or a camping trip through the Yellowstone National Park. My facilities for outfitting parties are of the best and my long residence, experience and thorough knowledge of the country makes the chances of a pleasant and successful trip assured. References furnished on request. S. N. Leek, Jackson, Wyo.

* * *

FOR SALE—Best grade Mannlicher repeating rifle, 8 m m caliber, all improvements, fitted with fine telescope sights, improved hair (double) trigger. Perfect condition; killing range two (2) miles. Cheap for cash. Will accept Luger or German model Colt's automatic pistol in part payment. "Mannlicher," care WESTERN FIELD Office.

* * *

FOR SALE—Highest grade Sharp-Borchardt target rifle, extra fine pistol grip stock, full target sights (windguage, level, vernier, etc.), just recut by Geo. Schoyèn and fitted with false muzzle, special bullet mould and starter, lubrication pump, etc., complete. In heavy sole leather case. Never fired except for target proof. Phenomenal shooter. Just right in dimensions. Cost $165. Have no use for it and will sell cheap or exchange for approved value. Can be seen at WESTERN FIELD Office.

* * *

FOR SALE—Two fine high grade rifle telescope sights, made by Sidle, Phila., to order. One is 5-8 and the other 7-8 inch diameter. All latest improvements, largest field, perfectly flat, unexcelled definition and illumination, both with extra adjustable eye pieces and brand new. Mountings complete. Sell cheap or trade for best offer. What have you? F. H. M., care WESTERN FIELD.

Antique Spanish Inlaid Chest

WITH FINE WROUGHT IRON LOCK AND KEY

McCann, Belcher & Allen
600 Sutter St., San Francisco

Dealers in Antique Furniture, Etc.

One of BENGUIAT'S Rugs

Mrs. George Gould has in her Louis XVI room an Antique Giordes (Yordes) rug which is believed to be the biggest in the United States. We are the lucky possessors of a larger one which undoubtedly is the biggest of its kind. We will sell it accompanied by a few small Antique Giordes prayer rugs for fifteen thousand dollars, ($15,000.00.) To be shown only by appointment.

H. Ephraim Benguiat & Son

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SAN FRANCISCO, CAL.

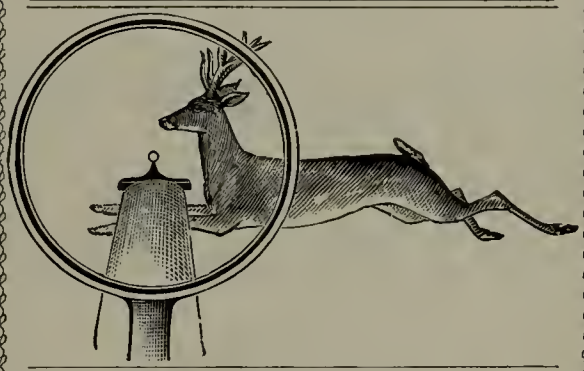
G. K. CLAXTON

COLLECTOR OF
ORIENTAL AND EUROPEAN
ANTIQUES

"La Voluta"
Italian marble bust by "Michele Sansebastiano," Genoa, Italy.

213 POST STREET
SAN FRANCISCO CALIFORNIA

Lyman's Patent Rifle and Shotgun SIGHTS



Accomplish best results both at target and when hunting

Our new, complete, 96 page catalogue of sights for target and sporting rifles and shotguns will be mailed without charge on receipt of request.

The Lyman Gun Sight Corporation
MIDDLETON, CT.

TRADE TOPICS

A MAGNIFICENT DISPLAY.

To all who appreciate beauty of design, richness of material, and that perfection of finish which is the hall-mark of the master-craftsman, the stock which the Bohm Bristol Company will offer at their new jewelry store, 104-110 Geary street, will be peculiarly attractive.

Through the courtesy of a member of the firm, the writer was permitted to inspect the exquisite articles which will fill the show-cases upon the opening of the store in early April. Particular interest attaches to the gems, which are of the utmost purity, and which are mounted in rare and delicate designs, many of them exclusive and unique, and all of them admirably constructed to insure at once a lightness of effect, combined with that strength which utility demands.

Nowhere, either in America or abroad, will be found more finished examples than are here displayed, of what may be done where the trained hand of the artisan fulfills the ideal of the designer.

For those of simpler tastes, there is a wonderful variety of gold jewelry of equally artistic merit and a wide range of price. There are watches, of course, by the score, from the tiny, jeweled pendant for miladi's chatelaine to the complicated time piece guaranteed to satisfy the most exacting. Of silverware there is no end, from the dainty trifle of the boudoir to the substantial presentation service, the convivial punch-bowl and the coveted trophy. Cut glass of dazzling clearness and intricate design, or those more sober cuts which attract the quicter taste are here in variety. It would seem that nothing has been forgotten which can tempt or gratify the public taste.

The manner of displaying these delightfully attractive goods will be found admirable. The most beautiful of solid mahogany has been employed in the construction of show-cases and counters, and their arrangement is such as to preserve an attractive appearance, while facilitating the convenience of patrons. Indeed, from the writer's inspection of both stock and fixtures, it is quite evident that the new San Francisco will show its approval of this new and magnificent establishment.

* * *

A VALUABLE ACCESSION.

We congratulate Messrs. J. H. Lau & Co., American distributors of the world-famous Ballistite powder, on their good fortune in securing the services of D. W. King Jr., in the capacity of Western representative, the territory assigned him being that vast section lying between Omaha and the Pacific Coast. If there ever was a perfectly competent demonstrator of the virtues of an explosive that man is D. W. King. A marvelous rifle and shotgun shooter, with an unparalleled wealth of practical experience and the tact and address to make the most of it, Mr. King combines therewith a very pleasing personality and a very extensive and favorable acquaintance with the sportsmen of the Great West. His selection by Messrs. Lau & Co. reflects very creditably both upon Mr. King and their own good judgment and enterprise. The Western interests of Ballistite could be in no better hands. King knows how to "make good," and has a very engaging habit of putting that knowledge into effective practice.

SHREVE & CO.
STATIONERY

Club and Society Stationery.
Book-Plate and Heraldic Engraving.
Exclusive styles in Monogram and Writing Papers.

POST & MARKET STS.
SAN FRANCISCO

Shoot the shoots with waterproof
"INFALLIBLE"
the only dense powder made in America

LAFLIN & RAND POWDER CO.

A FAVORITE RESORT.

From all indications the fishing at and near the celebrated Klamath Springs, Beswick, Siskiyou County, will be better this season than ever before. In the Klamath River and Shovel Creek may now be daily seen great schools of big rainbows heading up stream, and old settlers declare that the run this season is phenomenal. For the benefit of those few outers in California who are not already acquainted with the famous Klamath Springs resort we may say that its elevation is 2,700 feet, and its distance from Lairds (a station on the C. & O. express, two miles north of Ayer); by train twelve miles to Hot Springs station, eight miles to the Springs, with a beautiful ride along the banks of the Klamath River.

We have not space to enumerate the many choice attractions of this most favored resort, but suggest that our readers apply for full information at the S. P. Information Bureau, 613 Market street, or at Peck's Bureau, 11 Montgomery street, this city. We unqualifiedly recommend Klamath Springs to all our friends who are desirous of the best fishing, hunting and general outing facilities to be had in this State.

* * *

A CREDITABLE CATALOGUE.

In a beautifully illustrated and nicely printed catalogue of some seventy-six pages, the Union Gas Engine Company of San Francisco describe a particularly interesting line of marine engines which will appeal to every launch owner and builder on this coast. The illustrations are the very best of the kind we have ever seen and the booklet will interest every one concerned with mechanics or aquatics. For copies address the company as above.

* * *

AN EXCEPTIONAL HONOR.

The amateur average of the Sunny South Handicap was won by Mr. M. N. Atchison, shooting U. M. C. factory-loaded shot shells. This is an exceptional honor considering the list of high-average shooters present and the unfavorable weather.

* * *

THEY SHOOT WELL AND WEAR WELL.

An Ohio shooter recently wrote the Remington Arms Company: Ilion, N. Y., as follows:

"I have shot the Remington you made for me in 1897 over 35,000 times at the trap, using three and a half drams of smokeless powder, and considering the service it has seen its present condition is remarkable. It holds the record in this part of the country with 167 straight and 204 out of 205 flying targets."

* * *

FOR THE FAIR SEX.

We are advised by Messrs. Clabrough, Golcher & Co., 538 Market street, this city, that they have now in course of preparation, a special ladies' catalogue of outing garments which will gladly be sent free to any lady who will kindly send her address for same. It will illustrate a particularly full and engaging line of ladies' requisites for all outdoor recreation avocations, embracing all the fashionable styles, weaves and fabrics, including khaki both domestic and imported, corduroys, covert cloths, whipcords, etc., etc., in great variety; made to order as these garments will be, the most perfect fits will be guaranteed. The line includes divided skirts, riding habits, ordinary wear garments and special styles to suit every requirement and exquisite effects can be had in any fabric now offered to discriminative tastes. As these garments are made locally in their own San Francisco shops and factory prompt delivery and moderate prices are insured. Send for a copy at once and examine at your leisure the most attractive line of ladies' outdoor garments ever offered on this coast.

* * *

A PIONEER FACTOR.

Our office this month was favored by a call from Mr. N. R. Davis, the senior member of the great firm of N. R. Davis & Sons, Assonet, Mass., manufacturers of the famous Davis hammerless gun, an arm that needs no commendation at our hands, it being known to sportsmen the world over. Mr. Davis is a gentleman of very attractive personality, and of wide information on all that pertains to sport and its attendant paraphernalia. He informs us that the outlook for the season's trade is very encouraging and reports an especially heavy and proportionately gratifying demand for his own product. He is here in the interests of his company and advises us of a change in his local representation, which is noted in his advertisement this month.

ALL MEN
WOULD USE
WASHBURNE'S
PATENT IMPROVED
Cuff Holders

If they knew of their wonderful utility and comfort. Instantly attached or detached. **The Little Fastener with a Bull-Dog Grip,** as applied to

Cuffholders.....20 cents
Key chain and ring.....25 cents } Sent post paid
Scarfholders.....10 cents

Also 2 other useful novelties fully described in illustrated catalog. Sent free on request Sold everywhere.

American Ring Co, Dept. 66 Waterbury Conn.

RADKE & CO.
118 SUTTER ST.
BET. KEARNY AND MONTGOMERY STREETS
JEWELERS
AND
SILVERSMITHS

Field Trophies and Shooting Medals
DESIGNS FURNISHED GRATIS

CLUB EMBLEMS

A FEW PARKER POINTERS.

Fred Gilbert, the champion trap shot of 1902 and 1903, is doing wonderful shooting this year. Out of 1,000 targets shot at in nine events, he broke 962, or 96.2 per cent, shooting the old reliable Parker. The Sunny South Handicap Amateur Average was won by M. E. Atkinson with his Parker gun. Mr. T. W. Morfrey holds the championship of New Jersey at live birds, won with the Parker. Walter Huff, shooting at 100 targets at Macon, Ga., broke 96; at Columbus, Ga., broke 94; at Americus, Ga., broke 96. Such scores as these speak volumes for the Parker Gun.

SOME SCHULTZE SCORES.

At the Cataret Gun Club's amateur championship, shot at Westfield, N. J., on the grounds of the Cateret Gun Club, February 22-23, Mr. D. E. Bradley and Mr. G. E. McAlpin tied on scores of 92 out of 100, first-class pigeons. In the shoot-off at 25 birds each Mr. Bradley scored his first 23 straight, and as Mr. McAlpin had then lost three birds, the race was over and Mr. Bradley was the winner for the second time, he having won the title and trophy last year. There were twelve competitors. Mr. Bradley shot "New Schultze."

THE IDEALS WERE ADOPTED.

Pursuant to an order from Brigadier General G. F. Elliott of the United States Marine Corps, Major Rufus H. Lane and other officers of the Marine Corps have been conducting a series of experiments with various bullets and charges of different powders in view of securing a satisfactory charge for short range practice. Among the bullets submitted was one designed by the Ideal Manufacturing Company of New Haven, Conn., designated as No. 308,245. The forward edge of the front band is left sharp and acts as a scraper which collects the residium left in the barrel and deposits it in the front groove, thus cleaning the barrel each shot and lubricating it at the same time. The regular full service shell after being resized and put in proper condition, was found to be preferable to the short range shells with the groove near the muzzle. The regular service shells after having been fired are reformed to the original shape. The muzzle of the shell is then expanded to .310 degrees and the bullet lubricated and sized to that diameter, with an implement made especially for that purpose. The bullet is then seated a snug fit in the muzzle of the shell on a charge of four grains of Laflin & Rand's "Unique" powder, measure with the Ideal U. P. measure No. 5, measure set at seven grains, shell not crimped. The regular short range practice distance is seventy-five feet. With this ammunition the shooting was found to be very accurate and there was no fouling of the barrel. The combination proved so satisfactory that the various marine corps stations have been supplied with a complete outfit for preparing this ammunition, the order having been given to the Ideal Manufacturing Company, New Haven, Conn., for one set for each station, this company's tools having received the recommendation of the investigating committee.

* * *

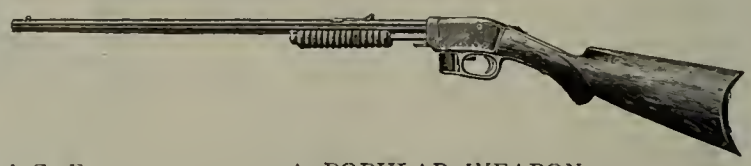
THE SYRACUSE MAN.

Among our most welcome visitors this month was Mr. W. C. Buell of the Syracuse Arms Company, who is here for the purpose of overlooking the coast field in the interests of his concern, as well as to visit relatives and friends in California, he having a veritable legion of the latter. Mr. Buell reports prospects as very fine and is naturally elated over the flattering adoption given the Syracuse gun in this section last year. He informs us that his firm has now in course of manufacture for early issue this spring a particularly fine new model which he anticipates will "take" here on introduction and from samples which he kindly exhibited to us we are inclined to agree with him fully. The Syracuse guns are particularly good and attractive guns for the money and their large adoption on this coast is proof of their merit, for nowhere are sportsmen more discriminating or better judges of what is really a top-notcher in the way of guns.

* * *

THE SMITH MAN.

Any one who reads the daily papers needs not to be told that Harvey McMurchy is in this neck of the woods, for there have been great doings at the traps during the past month and "Mac" with his reliable "Smith" have, as usual, been prominently in evidence. That combination has been responsible for so many perfect scores in the past that it is no longer a matter of news to chronicle more of them. Everybody expects as much from "Mac" as they do from the famous Smith, so the result is foreseen.



A POPULAR WEAPON.

For spring shooting no arm appeals to the sportsman more than the 22-caliber rifle. Among arms of this type the Savage 22-caliber repeater is different from any other rifle of its kind. It is a clean-cut little gun using the best of the 22-caliber ammunition—the short, long and long rifle cartridges all in the same arm. Its beauty of outline and finish will always be a source of pleasure to the owner. Perhaps the two strong points of the Savage are accuracy and the smooth and easy manner in which it works. This arm has met with a great success and there is no reason why it should not. Savage rifles, the 22 in particular, are well exemplified in the phrase used by the manufacturers, "Savage quality." It is a commonplace term but means everything to a shooter. Being honestly made all Savage products are sold by the manufacturer under the strongest guarantee.

Mention WESTERN FIELD and write the Savage Arms Company, P. O. Utica, N. Y., to-day for catalogue.

* * *

SOME U. M. C. PERFORMANCES.

The Columbia Rifle and Pistol Club held a shoot at Harbor View Park, San Francisco, on Sunday, March 6.

In fine rifle match at 200 yards, without rest, G. M. Barley scored 68-91 with a 32-40 rifle, using U. M. C. 32-40 cartridges and U. M. C. primers. F. Knostman scored 96 with a 25-21 rifle, using U. M. C. 25-21 cartridges and U. M. C. primers. T. L. Lewis scored 196 with a Remington No. 7 rifle, using U. M. C. 22-long rifle cartridges.

In the revolver match at fifty yards, without rest, Mr. A. J. Brannagen scored 42-45-51-52 with a Smith & Wesson 32-20 revolver, using U. M. C. 32-20 cartridges. C. M. Daiss scored 44-62-63 with a Smith & Wesson revolver and 33 Smith & Wesson Russian (U. M. C.) cartridges and U. M. C. primers.

In the 22-25 rifle matches at fifty yards, without rest, J. Campbell scored 46-57 with a 22 Marlin rifle, using U. M. C. 22-long rifle cartridges. T. L. Lewis scored 35-77 with a Remington No. 7 rifle, using U. M. C. 22-long rifle cartridges.

At the Oakland Revolver Club prize shoot, held in that city at 412 Fourteenth street on Saturday, March 5, Mr. William Proll scored 48 out of a possible 50 at twenty yards, without rest, with a Remington target pistol shooting U. M. C. 22-short smokeless cartridges. This was the bet score. The next highest score was made by Mr. J. F. Trego with a Smith & Wesson revolver, 46 out of 50, using 32-20 U. M. C. smokeless cartridges.

* * *

AN INTERESTING WORK.

A book on the Indians of the Yosemite Valley by Galen Clark, one of the pioneers of that region and the discoverer of the Mariposa Grove of big trees, is announced for publication early in March. Mr. Clark was a member of the first commission to manage the Yosemite Valley after it was ceded to the State in 1864, and was also guardian of the valley for twenty-four years. He has lived in or near the Yosemite for over half a century, and his thorough acquaintance with the Indian tribes qualifies him to write with some authority on their curious customs and picturesque traditions. It will be elaborately illustrated from photographs, and from sketches by Chris Jorgensen, the Yosemite artist, and will be handsomely printed and bound. It will be published by the author.

1904 Tonneau 1904 Light Touring Car

TWO MODELS

Haynes-Apperson Automobiles

TONNEAU, $2,550, with top and front glass, two solar No. 1 gas headlights, two Dietz Regal oil lights, tail light, horn with tube and full equipment. $2,450 without top and front glass.

LIGHT TOURING CAR, $1,450, having much the same outward appearance as our famous Runabout of 1903, but of higher power and capacity and distinctly a powerful touring car—not a Runabout—the most highly developed car of its type—the perfected product of the oldest makers of motor cars n America.

We make more nearly the entire car than any other factory in the world, and are, above all others, competent to guarantee our product. These cars show fewer mechanical changes and contain more features that years of use have proved perfect in practice than any other, and are backed by an unequal past record—seventeen contests entered—seventeen contests won, with stock cars.

Most Haynes-Apperson cars have practically been sold before they were built Get your order in early.

HAYNES-APPERSON CO, KOKOMO, IND., U. S. A. The Oldest Makers of Motor Cars in America

Members of the Ass'n of Licensed Auto. Manfr's. Branch Store: 1420 Michigan Avenue, Chicago.

Eastern Representatives:

BROOKLYN AUTOMOBILE CO., 1239-41-43 Fulton St., Brooklyn, N. Y. and 66 West 43d St. New York.

NATIONAL AUTOMOBILE & MFG. CO., Pacific Coast Agents, San Francisco.

OPENING SHOOT OF THE CALIFORNIA WING CLUB.

On Sunday, March 6, at Ingleside, the opening meeting of the California Wing Club was held. Twenty-four shooters faced the traps, among whom were many local shots, together with visiting experts. Considering the inclemency of the weather, the attendance was more than was expected and all indications point to unusual and enthusiastic interest in the live-bird shoots which are to follow.

Among the shooters distinguishing themselves were Harvey McMurchy, Ed Donohue and Pete Walsh, each killing twenty-five straight. Clarence Naumann, Otto Feudner and Gion Gibson were unfortunate in losing hard-hit birds out of bounds. The general shooting was of high order, and considering that it was the first shoot of the season the shooters are to be complimented upon their scores.

The fact that the twenty-four contestants all used U. M. C. ammunition without a single exception speaks volumes in favor of this excellent product. It was very noticeable and we think it is unprecedented, at least on this coast, establishing a new sort of record as it were.

* * *

At Omaha, Neb., February 2-5, Mr. J. H. Severson won the Interstate Cup that Nebraska State offered in competition. He used three and one-eights drams of "New Schultze" powder. At Middletown, N. Y., on February 19, Mr. J. S. Fanning, shooting "Infallible," won first general average by breaking eighty-nine out of one hundred targets. Conditions were very hard, as the tournament was held during a snowstorm. D. D. Stever and C. H. Smith were first and second amateurs, both using "Infallible."

* * *

OF CONCERN TO CANINES

As well as their owners is the new literature just ready for free distribution by the Roach Manufacturing Company, Brooklyn, N. Y., who want all "dog men" to write them at once. They have a lot of new things to interest the friends of our friend and the small trouble incurred will be well repaid. Write to-day, while the matter is fresh in mind, on our earnest recommendation.

INDOOR RIFLE CHAMPIONSHIP OF THE U. S.

The annual indoor rifle championship was again won with Peters' 22 short cartridges, making an unbroken succession of seven of these important events to the credit of this ammunition. The winning of this event is a severe test of man, weapon and ammunition, and the selection of this make by the winners attests the confidence in its superiority inspired by its numerous victories in the past.

For four successive years the average of the winning scores has been 245.5 points out of a possible 250, a mark but little short of perfection. In addition to winning the premier events of the indoor season, it also won the prizes in the other notable matches held in connection with the championship.

The new champion is Mr. L. C. Buss of New York City, whose score of 2,456 is but two points below the record for this event, which was made by Mr. L. P. Ittel of Allegheny City, Penn., in the contest of 1902.

* * *

THE SPINAL BRUSH.

In these days of radium, Roentgen rays and the other wonderful strides made in medicine and surgery, it seems almost puerile to laud and speak of so simple a contrivance as "The Spinal Brush," but simple as it is, it is astonishing that the world do move and has moved for centuries and countless cycles, and yet 'twas only yesterday that so useful and necessary an article as this saw the light of day.

There are many brushes on the market, hair brushes, tooth brushes, nail brushes and bath brushes, but there is only one spinal brush, and thousands who were troubled with nervous diseases, sluggish or impeded circulation, etc., have cause to call this little invention blessed.

The daily application of the spinal brush relieves almost every ill which flesh is heir to, promotes circulation, elasticity of mind and body, produces a feeling of exuberance, contentment and true happiness which essentially makes life a grand sweet song.

THE 100-SHOT GALLERY RECORD.

On February 9, 1904, on the range of the Zettler Rifle Club, New York City, Mr. W. A. Tewes put up a score of 2,460 out of a possible 2,500, thus equaling the record made by the veteran marksman, Mr. M. Dorrler, May 5, 1901. Mr. Dorrler's score stands as the 100 shot indoor record, and expert marksmen have vainly endeavored to equal or surpass it. The conditions under which these records were made were similar, being at seventy-five feet, position strictly offhand. Both of these gentlemen used Peters 22-short cartridges loaded with King's semi-smokeless powder.

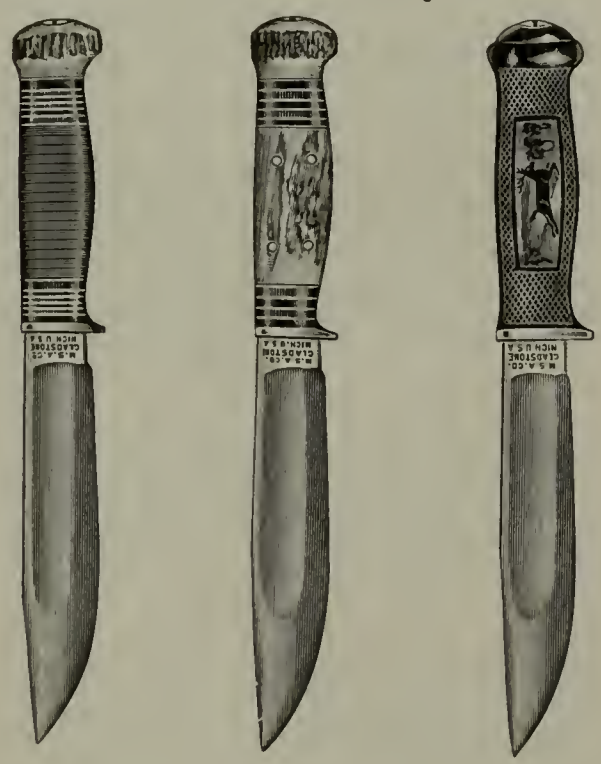
* * *

DEPENDABLE KNIVES.

The illustrations herewith show Marble's six inch Ideal hunting knife with three styles of blade, Nos. 1, 2 and 3. The blade as at present made is a modification of the two shapes of blades formerly made, known as sticking and skinning points, and is claimed by many expert hunters and woodsmen to combine more of the essential qualities for all-around use than are usually found in one style knife.

The new blades are slightly thinner than the old pattern and carry a more gradual bevel back of the edge. The bone chopper at the back of point is a valuable feature for rough work.

The solid hard-rubber handle, No. 3, is considered by some to be superior to any other material for the purpose. The heavy tang, threaded at the end, just



fits the mortise in the handle, and a half-inch brass nut counter-sunk in the end of the handle, engaging with threaded tang, makes the strongest fastening that it is possible to make.

The stripes or trimmings at each end of the No. 1 and No. 2 handles are made up of alternate washers of colored hard fiber and brass or German silver, that are a driving fit on the tang. The center of the No. 1 handle is composed of leather washers put on under heavy pressure and held in place by the nut countersunk into the end of stag tip. The No. 2 is the same construction except that the center is composed of two grooved slabs of selected stag riveted together and driven on the tang the same as the washers.

The popularity of the Marble knives is proved by the fact that the sales are considerably more than doubling up each year.

* * *

SOME WINCHESTER WINS.

The first annual handicap target tournament of the reorganized Los Angeles Gun Club took place on their new grounds near Sherman Junction on February 20 and 21. Of the forty-three shooters that faced the traps at this tournament forty shot Winchester "Leader" shells, and eight used Winchester "Pump" guns. The highest general average of the tournament was eighty-nine and three-quarter per cent, and was made by W. H. Seaver of San Francisco, shooting from the twenty-yard mark and using the above combination. The second high average was made by Guy Lovelace of Los Angeles, shooting from the eighteen-yard mark and using a Parker gun and "Leader" shells. The third high average was made by J. E. Vaughn of Los Angeles, shooting from the twenty-yard marks and using a Smith gun and "Leader" shells. The Tufts-Lyon Challenge medal was captured by Guy Lovelace of Los Angeles on the score of forty-five out of a possible fifty, with a Parker gun and "Leader" shells. In this event W. H. Seaver of San Francisco scored forty-six out of fifty with a Winchester "Pump" gun and "Leader" shells, but being a manufacturer's representative and shooting only for the targets his score therefore did not count. The Two-Man "E. C." Cup was captured by J. E. Vaughn of Los Angeles and Roy Whitman of Oxnard on the splendid score of forty-seven out of a possible fifty Mr. Vaughn shot a Smith gun. Mr. Whitman used a Winchester "Pump" gun. Both gentlemen shot Winchester shells. The Individual Championship Diamond Medal was won by Guy Lovelace of Los Angeles on the splendid score of forty-seven out of a possible fifty, with a Parker gun and "Leader" shells. The big Miss-and-out event was captured by Fred Gilbert, shooting a Smith gun and "Leader" shells. The Five-Man Team Cup, twenty-five targets per man, was won by Messrs. Stephens, Vaughn, G. Gibson, J. Gibson and Whitman, on the score of 109 out of a possible 125. All five of the gentlemen composing this team used Winchester "Leader" shells and Messrs. Stephens and Whitman also used Winchester "Pump" guns.

The third annual target tournament of the Ontario Gun Club was held at Ontario, Cal., on Washington's Birthday. Of the twenty-six shooters that participated in this tournament, twenty-one shot Winchester "Leader" shells and six used Winchester "Pump" guns. The first three high averages of the day were made by shooters using the Winchester "Leader" shells, and of these three, two were made by shooters using in connection Winchester "Pump" guns. W. H. Seaver of San Francisco, using the gun and shells above mentioned, scored eighty-nine and nine-tenths per cent on the 200 targets he shot at during the day. Roy Whitman of Oxnard, using a Winchester "Pump" gun and "Leader" shells, scored ninety and five-tenths per cent on the 180 targets he shot at during the day. J. Gibson of Nordhoff, shooting a Parker gun and "Leader" shells, scored eighty-eight and nine-tenths per cent on the 150 targets he shot at during the day. Messrs. Seaver, Whitman and Gibson used the Selby factory-loaded shell.

* * *

AGE MAKES NO DIFFERENCE.

The following interesting letter has been received by the E. I. DuPont Company:

POTSDAM, N. Y., Feb. 24, 1904.

DuPont Powder Company.

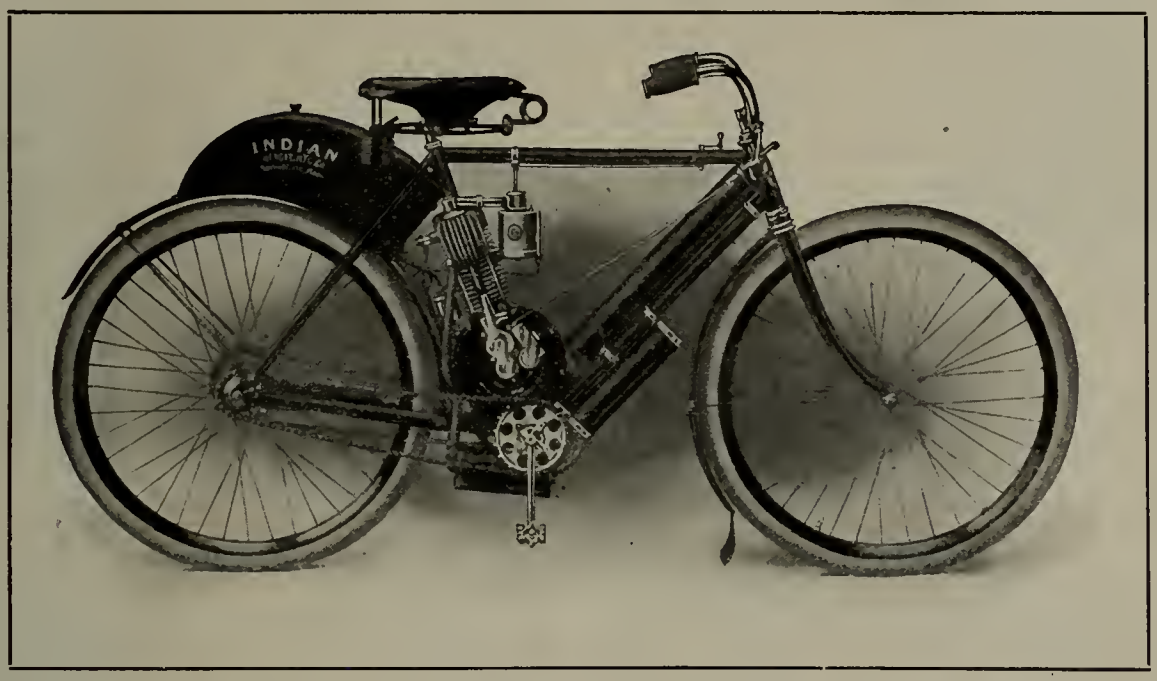
Dear Sirs: I have in my possession some DuPont powder which was bought about fifty years ago by my uncle and grandfather; they owned two rifles and did lots of shooting, so they bought a considerable quantity of powder and stored it in a large stone heap on my father's farm at a safe distance from the buildings. Uncle took to fever and died; grandfather never shot much more and died not long after; my father was no gunner, so the powder or portion of it was left until about fifteen years ago. I went and dug it out. There was a large flat stone over the box and about two dozen one-quarter-pound cans, round cans, I think, with an Indian's picture on each one. They were badly rusted. I picked the rusted can from around the caked powder, broke it up and sifted out the dust, leaving the powder looking quite natural but for some red grains that showed the rust. I saved four pounds. I never tried it till last fall. I loaded 38-72 shells with it and some with some DuPont bought recently. The old powder shot fully as strong as the new. Yours truly,

W. A. CLARK.

* * *

IT IS WORTH WHILE

To send for the dainty little booklet which has just been issued by the Hopkins & Allen Arms Company describing and illustrating three popular styles of their rifles. The cover consists of a very unique and attractive design printed in colors and the inside pages give full detailed information, with photographs, of the H. & A. rifles. We are sure this little



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booklet will be appreciated by all those interested. It will be sent free on request by the Hopkins & Allen Arms Company, Norwich, Conn., if you mention this publication.

* * *

A CHARMING VOLUME.

Fishermen the world over will welcome a book on Putnams' new list, entitled *The Angler's Secret*. The author is Charles Bradford, who is already known for his earlier volumes, *The Wild-Fowlers* and *The Determined Angler*. The latter work, which was called by Grover Cleveland "the most pleasant and practical and sensible volume I have ever seen of its kind," was devoted to brook-trout only. This new book, which is fully illustrated, treats of the sporting species of both fresh and salt-water fish—from the tiny mountain trout to the mighty striped bass of the ocean. It contains a full description of various tackles, and the methods of catching these fish, together with notes of their habits and habitats.

The latter part of the book considers, not so much the methods of actual fish-killing as the glory of the chase—the lovely scenery, pure air, the natural exercise, and the general exhilaration. All these things are appreciated by the true and chivalrous angler more than the actual filling of the creel.

* * *

IT WILL INTEREST YOU.

Recognizing that there is a prejudice against the use of firearms by young people, the Stevens Arms and Tool Company attempted to disabuse the public's mind on this score and cleverly formed an appeal in the columns of *St. Nicholas* to the little ones, themselves, asking them to define and justify their right to bear arms. The results of this appeal are embodied in a little booklet called *Young People's Right to Bear Arms*, which will be sent to any one on request. It embodies many very interesting communications from the little folk and their arguments are worth reading by every man and woman who have young ideas to teach how to shoot. Every one knows that the little folk occasionally scintillate with good expressions and this little book is full of them. Better send for one and enjoy an hour's appreciation of the precocity and intelligence of our American "kids."

SEND FOR THIS.

It seems almost like indefensible tautology to revert in these columns to the many excellences of the world-famous Lyman sights, for that has been done so often by sporting writers the world over that to assume that the public need to be told anything about this celebrated product would approximate to an actual insult to the world's intelligence.

And yet, as one loves to dwell on the beauty and charm of a master painting for instance, no sportsman can help expressing his appreciation of this really most valuable of all sporting appliances. And this appreciation is universal. Go where you will, you will find on every intelligent rifleman's pet weapon the good old Lyman sight in all its unpretentious but effective glory. It has really become an indispensible adjunct to the sporting rifle be its caliber and "make" what it may, and its adoption and permanent retention by all peoples of all lands really renders unnecessary this involuntary commendation. All this by way of preamble to the announcement that the Lyman Gun Sight Corporation—who are still at Middlefield, Conn.—have their new catalogue ready for free distribution.

* * *

A CATALOGUE YOU WANT.

The new catalogue of stamped and embossed sheet metal boats made by W. H. Mullins, Salem, Ore., is just ready for issue and should be in the hands of every one who has use for a boat. This catalogue is in its way as good as the celebrated boats which it describes and illustrates, being easily the best that has come to hand so far this year. The demand is already so great that the edition has been increased to 25,000 and this number will, from present indications, be exhausted soon. It is profusely illustrated with good catchy half tones, is beautifully printed on fine paper and is, in every way, a desirable addition to sportsmen's literature from pure intrinsic and artistic merit alone. In this connection we are pleased to learn that the Mullins Company have foreign orders already booked for over two carloads of their boats, while in America the sales have increased four-fold this year.

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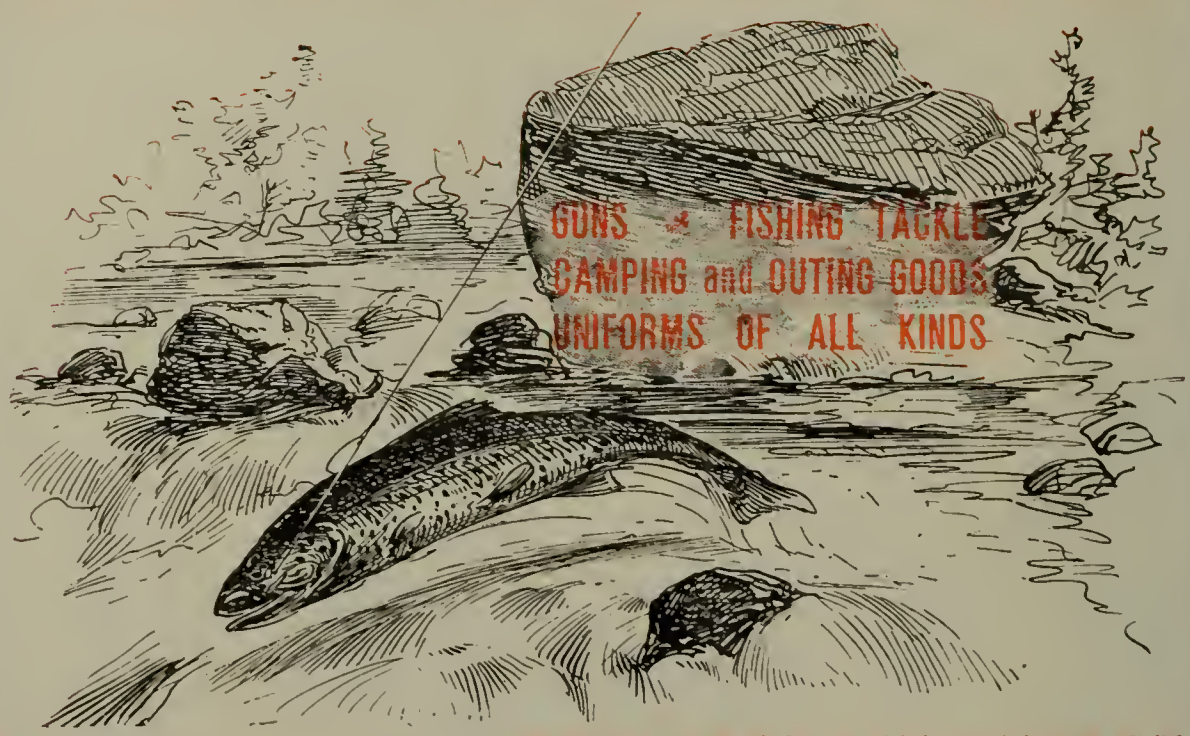

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Photo by R. H. Beebee

"TWO IS COMPANY—THREE IS NONE" (YOUNG SHRIKES)

WESTERN FIELD.

VOL. 4. MAY, 1904. NO. 4.

THE KID'S BEAR.

By JAMES H. PIERCE.

"KIDS ARE sho'ly queer people," said Fletcher Brown. I guess you have all been introduced to "Fletch." We were away up in the Greenhorn Mountains, north of the Wet Mountain Valley, and our camp-fire chat had got on children and their ways.

"I knew a boy once, little spindlin' laigs that could run a hound down, and tow-colored hair an' eyes that kep' you guessin' whether they were blue of gray. He and his sister—father and mother, 'course—were with a party that I was guiding. The rest were shore a lot of goslin's—young fellows without any more idea of the seriousness of life than a hound pup, always trying to get some 'gag' off on each other.

"The love of this boy and his sister was something pathetic, and these goslin's were eternally preying on it by telling horrible stories of bears and lions that had eaten little kids, and asking the boy all sorts of questions about what he'd do if a bear got after his sister. That pore little chap's eyes would get round and he'd actually shiver as they'll retail some horror of some animal carrying off some baby or other.

"One day while I and the father was down at Currant Creek after supplies, these goslin's happened onto a bear, killed it and then conceived the wonderful idea of scaring the little chap out of a year's growth. They carried the bear to within a couple of hundred yards of camp, propped it up and one stayed behind to growl and scare the kids while the others got them out there.

"The boy's 'dad' had an old .45-70 carbine that he allowed the shaver to carry about empty, but this day, 'dad' being away, Joe had the magazine filled with cartridges—felt sort of responsible for the camp's safety, I reckon—and these goslin's never thought to examine the gun when the kid insisted on taking it along 'cause sister was goin', an' he had to look out fer her when dad wuz away.'

"Well, they got the kids where they wanted them, and then made some excuse and left them 'just for a minute.' The kid leaned against an old stump watching sister picking flowers—Lordy! but I used to wonder how those little stumpy laigs could carry her all day—until a fearful growl and a crash in the brush made him look up and see, not fifty yards away, the head of a bear over an old log.

"Quicker than I can tell it *ca-chuck, ca-chuck* went the lever, the little kid slid behind the stump and called for sister to 'run fer camp!' Little sister, frantic with terror at the horrible sounds, was screaming for brother to come, too, when that old carbine bawled like a young cannon; the kid picked himself up, worked the lever again, wiped the blood off his nose and faced the music.

"Dad and I were just crossing the ridge when we heard the baby's scream and the bawl of that old .45. We missed a few of the high places and when we got there a very much frightened little lady was crouched behind a very white—where he wasn't bloody—boy, who was looking through the sights at an old log. The little lady said 'daeh bear! daeh bear!' and pointed to the log. The boy in answer to my question said that he last saw the bear behind the old log. By this time the mother was there, *heeled, too;* that shore was a scrappin' family! I started

them back with the kids while I went forward to investigate. Huggin' the ground was one of those goslin's, shakin' as if he had the ague. A glance gave me the situation, and you bet I sent the father and mother back to camp with the kids, for I knew Mose would simply shove the faces of that gang in so far that their back teeth would bend if he knew the truth, and then I kicked some sense into this shivering sappy and told him to tell the rest that I would walk all over their frames if they breathed a word.

"We packed the bear to camp, and do you know that the kid had just hit that bear in the lower jaw and durn near tore the head off it! The little tike's arms were too short to reach the trigger properly, so he had to put the stock under his arm, and as a result he had a bloody nose, his cheek ripped open and his hands all skinned up. Jim'ineddy, but of all the swelled up dads you ever saw, and I saw tears in the eyes of the mother as she looked at that battle scarred youngster and hugged him. We had to cut the hide considerable to explain the other holes to the mother, and of course I explained the whole thing to Mose as soon as I thought he would stand it.

"Do you know all that kid ever said about it was when we brought the bear in. He looked at it for a minute and said, "Well, you didn't get *my* sister.'"

LINES TO A YOUNG URCHIN.

Young urchin, toddlin' with uncertain gait
Along the street,
Be careful of your steps, or soon or late,
Mischance, you'll meet
Such sights as terrify the grown-up race.
Be careful, man'kin, with your toddlin' pace!

The big, black dogs that love to congregate
Beside the road,
Are prone by nature to investigate
A stagg'ring load,
Such as your wicker-basket bears within;
To ease its weight a bit they hold no sin!

Or if some bigger lad, with hungry maw,
Begins to pry
Among the paper parcels, spite of law,
You must not cry;
But show your mettle, lad! defend your right!
I would be loath to see you turn in flight.

Why, legs so short were scarcely framed to run!
Such sturdy shanks!
A chubby lad like you thrives best on fun
And boyish pranks!
And yet, you'll not have many years to wait
For manly step, instead of toddlin' gait!

—*George H. Burchard.*

THROUGH DEATH VALLEY WITH A SHOTGUN.

By Harry H. Dunn.

SOME two years ago I was invited by Col. Bailey, then connected with the State Geological Survey, to accompany his party into the heart of the Mojave Desert. The object was to map and collect samples from the great beds of nitre, borax and rock salt found about the rim of Death Valley, and the party was at that time outfitting at Randsburg, a mining camp some 250 miles out from Los Angeles, where I then was. Three days after the receipt of "sailing orders" from the jovial Colonel, I left my home city on the Overland and managed to worry through the better part of two days and a night of desert, train transfers and dust, rolling into Randsburg thoroughly disgusted with the desert from every point of view, but I did not then know the vast sand flat that makes up the California section of the Great Basin, nor what sport with the rifle and shotgun was to be had on it.

The main body of the men, of whom there were an even "baker's dozen," were at the little town of Johannesburg ("Joburg" for short), just over a low range of hills and less than a mile from the larger camp. There the leader of the party was expected in a few days, and thither I went, soon making the acquaintance of the rest of the men and spending the days, until the Colonel came in from San Francisco, playing whist. To my surprise there was a very good golf links out in the flat below the town, and I saw some fair scores made by men and women who had no other training but that derived from printed directions. Of shooting of any sort there is none immediately about this settlement, though there are still a few mountain sheep in the higher hills, some half a hundred miles away; that is, they are there if the Piutes have not killed them all. The country is too wild and desolate for the Indians to pay much attention to the game laws, and when they do break them they are seldom punished—their haunts are too far from the source of the law.

So passed a whole lazy, languorous week, and then, the Colonel having arrived, we stocked up the three wagons and set out on the real journey. There were three large desert wagons, eight or ten horses, and, as has been said, thirteen men. No words can convey an adequate idea of the utter and forbidding desolation of that section of the desert lying between the railroad at Joburg and the Nevada line. The level floor of the country, as far as the eye can see, is cut up into shallow rounded barrancas or coulees, dry in summer but filled with boulders of scoria and lava, rolled down from the black volcanic buttes that raise themselves on the very rim of the horizon by the awful freshets and waterspouts of July and August. Among these watercourses there is more of animal life than one would think. The approach of evening brings out numbers of jackrabbits, which furnished me with the best of sport with the 25-20 rifle for an hour or two before sundown every evening while we were in these miniature "bad lands." The big long-eared fellows would run about two hundred yards when disturbed and then sit up on their haunches, offering in many cases a trying mark against the dull grays and sepia tones of the boulder-scarred slopes. I speedily learned that the methods I long followed in target shooting, and in the hunting of the lowland rabbits of my home hills, would not score very heavily here, and as I was hunting for meat for the party I had no punctilios about killing as many as possible. I found the big hares practically unafraid of man; not because he was a man, but solely because he was a strange animal.

Frequently I shot one of two feeding together, and the survivor would merely shake his head as if to get the hum of the bullet out and then hop off two or three paces, when, if I needed more meat, I would get him, too.

This sort of shooting, however, soon grew monotonous, and I set out to find something more exciting. Passing rapidly down a little "draw" in the low hills one afternoon, I came upon the dried carcass of an antelope; there could be no mistake about it, the horns and all were there, fairly well kept by the protecting atmosphere and the unusual distances of the desert. Now I know that he may have died—and very probably did—five or ten years ago, but then I struck right out to find the remainder of the band from which he perished. Needless to say I never found them, and the old guide who was with the party had many a good laugh at the antelope I did not get. However, that afternoon was not entirely lost, as I shot a large coyote at a good three hundred yards, which I consider rather good shooting with a gun of the general unreliability of the 25-20 at long ranges.

The last of these camps we made before reaching the ultre beds was at a place called Owl Springs, from the fact that in years agone, when the big borax teams pulled in and out over this road, the midnight call of an owl from his cave in the hills back of the water holes had awakened a teamster just as a band of halfbreed horse thieves was about to stampede his horses. These 'breeds are by no means all cleaned out of this part of the desert, and while not so bold as formerly, still we hobbled the horses and threw out a guard or two. This probably saved us some trouble, for during the night three fellows rode up and, being challenged, put their horses into a dead run up the dry bed of a nearby barranca. This was the only time we were disturbed on the way in, though later we had troubles of a more serious nature with others of the scoundrelly white Arabs that infest these regions.

DEATH VALLEY.

From Owl Springs on, a summer cloudburst had obliterated the road, and we were compelled to break a new trail down a wash some two miles broad and filled with boulders from the size of a girl's thimble to a bushel-basket. It required the best part of a day to go from the water holes over fifteen miles of this road to a point where the bed of the real Death Valley could be seen.

Never was I more disappointed in my life than when I looked for the first time on the valley that has for so long borne so sinister a reputation.

Instead of the sudden sinking away of the level desert floor into a pit of great depth, as I had expected from all printed descriptions to see, there was only a gentle slope—not in the least different from that down which we had been traveling since reaching the divide—and then a broad bed of some shimmering white substance, through the middle of which ran an excuse for a river and from which the black land, covered with fragments of lava, sloped away up to another and yet higher range of mountains which I afterward learned was the Funeral Range. The river which I had noted is the Amargosa, a stream of some four or five hundred inches where it leaves the mountains, but here dwindled away to practically nothing, as there was not then twenty-five inches of the brackish liquid which flowed in it.

If I may be permitted to digress, I will here say a little concerning the topography of the desert pit into which we were now going. Half that has been written about Death Valley is entirely false and the other half so exaggerated as to be valueless. Imagine a sheet of borax and salt crystals seventy-five miles long by from five to twenty-five in width, irregular in outline and surrounded by two ranges of mountains, one running along either side and meeting at both ends so as to completely inclose the valley, and you have a pretty fair idea of the scene we looked down upon that November day.

From where we stood at the first viewpoint, to what was to be our permanent camping place at Saratoga Springs, was probably five miles as the crow flies; to me it looked like a scant mile at the outside, but when I struck out to beat the teams there I found the rods were wonderfully slow in stretching into miles and I was quite willing to drop back to the wagons after a few minutes' walk in the yielding sand of the roadless slope. Here, too, was the hardest kind of work for the teams.

These springs are at the extreme southeastern end of the valley and the water from them spreads out over a considerable area, forming a pool of unknown depth and uncertain bottom. On two sides of this lake the lower end of the Funeral range slopes

A DESERT BLACK TAIL.

down, but on the other two sides an L-shaped row of sandhills walls the water in from the bottom of the valley itself. Among these sandhills we camped, arriving late in the afternoon, though the marvelous light of the desert day made even the dark cañons of the mountains bright. As soon as we were settled for the night, I picked up a shotgun and walked over to the pond. Tules and other marsh growths were plentiful around it, the water full of various weeds—mostly *Valisneria* as far as I could see—and I judged it to be an excellent place for ducks, yet I was in no way prepared for the band of them that was waiting for me. It is no exaggeration to say that the mudhens (coots) were there by hundreds—and the ducks, of all kinds and colors, were equally plentiful. Seldom, if ever before, had a scatter-gun been drawn over this peaceful little lake, and the chances for sport were not so good as the chances for slaughter. The noisy mudhens interfered not a little in the shooting, but for all that four nice mallards, three widgeon and two teal came back to camp with me. These I got without wading, as the bottom to all these desert pools is very treacherous; had I had a dog I could have made a much larger bag. The birds stayed at this place as long as we did and the other boys got good bags from the

A DEATH VALLEY SPOONBILL.

bands. These ducks, and even those we shot later up on the Willow Creek marshes, were fat to a degree I have never noticed in the ducks of the gun-club preserves along the coast.

The miserable Piutes and "'breeds" of this section of the desert take ducks in a peculiar manner. A little farther up in the valley there are large borax refineries, around each of which are located several vats for the crystallization of the salts from water pumped in from the swamp below. In cold weather the ducks, beating down the wind, drop into these vats gladly as a respite from the long, hard flight. By morning those of them that have not moved around much at night will find their feathers incrusted with crystals of borax, and until the sun comes out they can not fly. Here the Piute hunter steps in and the ducks are his. Pretty much all that comes to one of these fellows' net is fish, anyhow. If he can not steal meat from the few settlers, he will try his luck on a mountain sheep, or, failing in this, the big fat desert lizard known as *chuckawallas* do as well as anything else. These they roast entire between two hot stones and the meat is said to be as white as that of a frog.

Speaking of mountain sheep: there are not a few left in the mountain ranges of the California desert, but they are fast passing away. In days of former plenty the Indians caught them in pitfalls and in "drives"; the preparations for one of which latter affairs, along in the early seventies, is said to have set the white settlers of the surrounding desert by the ears in fear of an Indian insurrection. The redskins had built stone driveways along the most-frequented of the bighorn trails, and little lookout towers on conspicuous points in the hills. These the whites mistook for signs of war and fled precipitately, but when a few prospectors did pluck up courage to return they made a nice bit of money by bringing out heads taken during the hunt and selling them to wealthy Southern Californians. The bighorns come down to drink at many springs in the Funeral Mountains, and from what I had read of them I supposed them to be very suspicious animals; on the contrary they are not nearly so wary as the common desert deer and much easier to stalk than a mountain lion—though this latter feat may well be considered an impossibility. Of course I could not shoot the big sheep, no matter how good opportunity they gave me, but any one who goes into this region for some museum or zoo ought to do very well in the capture of these animals. I remember one old buck, especially. I could have killed him with a shotgun, so little regard did he have for my presence behind a pile of rock. Recently a Mr. Frakes of Los An-

A SARATOGA SPRINGS SNAPSHOT.

THE CHINA RANCH.

geles took one of the sheep alive in the mountains back of Dagget and seems to have had very little difficulty in doing so.

But I digress. From Saratoga Springs we went up the valley of the Amargosa River (already mentioned) to its junction with a small stream called Willow Creek, thence up the latter to the famous China Ranch, where Ah Foo, a smooth Celestial, took up a government claim and then sold out to two different parties at one and the same time, going back to China before the game was discovered. Fortunately the two quasi-owners were able to settle their claims amicably, and now Dave Morisson, half-owner of the place, lives on it and makes a good income from the sale of hay and wood, both to passing travelers and to the surrounding mining camps. The creek bottom broadens out here to a width of half a mile or more and is covered with quite a heavy undergrowth. In this quail are to be found in coveys containing from twenty-five to two hundred. Although I have shot over some of the best quail land of the Southwest, I never before saw anything like this. The birds are the Arizona, or Gambel quail, and while not quite so large as the California valley quail, are still fine table birds, especially where they are allowed to grow fat, as they are out in this wilderness. They lie well together, fly finely and evenly, so that without a dog I managed to pick up seventeen in one afternoon, not counting several lost in the thick scrub of the bottom. Wherever the river broadened out there were ducks, too, but I preferred the quail, though several of the other members of the party had good bags from a mile or two up the stream.

Morrison puts out poison whenever possible, to save his chickens from the inroads of wildcats and coyotes, and, as I came upon the dead bodies of fully a dozen of the two animals, I judge that a man with hounds could have most excellent sport in this section. I also saw several coyotes, apparently as unafraid of me as they well could be, and had I carried the rifle that day I might easily have gotten one. There was nothing but a half-breed bulldog pup at the ranch house, so no sport was to be had in that line. While I was at Morrison's several bands of geese passed over, their *ha-ha ha-honk* ringing down through the still night air as I oft had heard it, moored in a boat along the swamp-scarred old Pacific's shores.

The hills around this ranch, though quite low, have some deer in them and now and then a mountain lion crosses from the higher ranges and in so doing wakes the echoes of the old valley with his wailing cry.

After a short stop at Morrison's hospitable caravansarai, we moved out across the Nevada Desert to the little stage station and postoffice at Manse—in Nye County. Here we got what we much needed, fresh meat in the shape of beef. A steady diet of bacon and game goes very well for a time, but one soon tires of it. We were told that there were many deer in the mountains back of Manse but had no time to investigate, though it was evident from the many tracks about the outbuildings that wildcats and other night prowlers were by no means scarce. The Colonel, however, was due in the northern city soon, so we left as quickly as possible, and after a short and uneventful return journey, reached our starting point just two months later in the year than we had left it. The trip was not all that it might have been in the way of a hunting trip; it was not organized for that purpose, but were I looking for a place to go to spend a pleasant winter in hunting and general outdoor life, I would take my hounds and guns and strike out for the much-lied-about Death Valley.

EXPERIENCE AND CONCLUSION.

The foothill farmer is the lad
  Who has things figured fine.
Ostensibly his living's gained
  By raising cows and swine;
But the only thing he raises
  Is a little patch of hay,
And his livestock operations
  Are conducted in this way:

To unsuspecting campers,
  And teamsters who are new,
He sells horse feed, and then proceeds
  To fool them not a few;
When the shades of eve have fallen,
  And night's lighted by the stars,
He meanders to the pasture lot
  And gently drops the bars.

Then from behind the rocks and trees
  Come forth a sow and shoats,
A half-starved horse, a hungry mule,
  A cow and band of goats;
And before the sleepy victims
  Can arise and holler "Scat!"
The feed that's left upon the ground
  Could be covered with a hat.

* * *

Where can you find a system
  For accumulating pelf,
That beats this one of selling feed,
  Then feeding it oneself?

—*Carlton McLaughlin.*

THE FLY FISHERS.

By Robert Erskine Ross.

IT MAY be that one who follows the fortunes of the Captain, Reginald, Winnie and the Duffer through this yarn will question the fitness of the title. But if that captious critic had watched the quartette, singly, in pairs and *en masse*, for a week before the opening of the trout season making daily raids on a tackle store for flies, he would at least admit a certain amount of circumstantial evidence to support the caption. There were large, gaudy flies that should easily have held a royal salmon; there were small, dull flies for bright days and vivid ones for dull days; pale millers for the dusk of the evening and tiny midges to tempt the appetite of epicurean trout. There were four books full of them.

The Captain frankly declared his ignorance of the finer attributes of the gentle art and, ignoring the nomenclature of the craft, persisted in speaking of a five-ounce split bamboo of the Duffer's as a "pole." Also, he spoke of hooks, and hooks of course suggest bait—salmon eggs, it may be, or even angleworms. The distinction, a trifling one, perhaps, between a creel and a reel was never, I am sure, quite clear in the Captain's mind.

Lest my reader weary with a too prolix introduction to the members of our party, we will be as brief as possible and then hasten to the stream-side. The Captain, then, is of the ——th Infantry of the Line, U. S. A., short of stature, merry of heart, age uncertain, and lately returned from the Philippines, where a native's dumdum bullet had played a game of cushion caroms somewhere in his anatomy, necessitating his coming home to recuperate; Reginald, of tender years and experience, with a taste for travel, a fad for horses, some fondness for sport, and withal a very good fellow; Winnie, on the right side of thirty, connoisseur of a few things, critic of many, and a thoroughgoing sportsman; and the Duffer, who thinks he knows a good book, a good dinner, a pretty girl and a good cigar, and is keen enough when any fishing or shooting is to be had. Time, a year or so ago; place, the cañon of the San Gabriel.

Trout season opened that year on the first of May, and for many weeks before the opening the stream had been in flood, so that when we started on April 30, the prospect for good fishing was poor, as the water was still very high and roily.

We were to stop at a camp established some twenty miles or so up from the mouth of the cañon, so all that we needed to take was our personal dunnage, rods and tackle, and enough of the cheering cup to guard against colds and snakebite. Just what amount of this latter commodity was enough occasioned some little dispute, the Captain standing firm for one gallon per capita. As our trip was to occupy only four or five days this seemed a rather ample allowance, and so was much cut down by all except the Captain. But of this later.

We were met at Azusa by a man who told us that our saddle and pack animals were "up there," vaguely pointing in the direc-

IN THE CANON OF SAN GABRIEL.

tion of a corral somewhere near the mouth of the cañon. Arrived at the corral, we saw our horses. They were a sorry looking lot. The packer in charge told us that we would have to wait for a later train from Los Angeles, bringing another party, as he was the only one going up that day, and the crossings were bad unless one knew them, on account of high water and quicksand. This gave us several hours to kill before starting.

Questioned as to his mounts the packer assured us that, with the exception of a little hard bucking at the start, they were all right. Be it known that the Duffer is not partial to a bucking horse, and therefore did he take the aforesaid packer aside and explain matters. It was arranged that the Duffer should have a certain tired-looking mule and a "navy" saddle, said combination being guaranteed to be the nearest possible approach to a rocking-chair.

Just as this treaty was concluded Reginald was seen striding at a great pace for the village, and on being hailed pointed to a house opposite, where a row of fluttering yellow flags proclaimed the presence of smallpox. Happening to pass a bookstore we stopped to get some magazines, and the proprietor, a nervous little man, volunteered the cheering information that our proposed trip up the floor of the cañon was well-nigh impossible, saying that we would have to swim our horses over the crossings.

After the inevitable delays our cavalcade started in good order. At the first crossing the stream had spread out considerably and the footing was good, but at the second the pack animals determined to return, and caused not a little anxiety to the Captain, for one of them had the gallon aboard. They were finally gathered in and we started again, but not before the Captain had rescued his precious demijohn from the pack-train and had swung it at his saddle-horn, like another John Gilpin.

Trail there was none, all trace of one having been obliterated by the flood waters, and the crossings became more difficult as we proceeded, owing to the increasing fall of the cañon and the added swiftness of the water in consequence. The Duffer's mount, the aforementioned mule, was indeed a sure-footed beast,—and eke he had to be, for being rather short-legged, his upper deck was frequently awash in the fords, and his stout little body braced against the current at an alarming angle. The Duffer began to think that perhaps the packer's "navy" saddle was an apt description.

All things have an end and so at last, wet and hungry, we dismounted at the camp. An early start was made the next morning, and it was arranged that Winnie and the Duffer should go upstream, leaving the first mile or so unfished, for Reginald and the Captain were to follow. Before parting the Captain was given a few pointers on how to fashion his cast, and how that peculiar hitch is made by which the leader is held so firmly and yet is so easily withdrawn.

The stream at this point is somewhat brushy and lined for the greater part by high alders, so that when the Captain made a few tentative casts he was soon in difficulty, his flies having fastened in the top of an alder.

Winnie and the Duffer did not wet their lines until a mile or so further up, and then a fair bit of water presenting itself, they started in. The day had dawned bright and clear with a warm sun overhead. An hour passed and the two had run the gamut of every fly in their books without a rise. Perhaps it was the water (which was far from clear), perhaps the way the flies were cast.

Finally Winnie sat him down upon a rock and began to take off his cast. This he replaced with a three-foot leader with a single number eight "Carlisle." Then he began to search the pockets of his jacket, from one of which he produced a small tin can. From thence he extracted a worm (fat, and wriggling its disapproval of the proceedings), which he carefully impaled upon the hook.

The Duffer was speechless. Winnie allowed the current to carry the lure around a bend and into a dark pool below, when a sharp strike followed, and soon a small trout —the first of the season—was beating a lonely tattoo in the creel.

"I say, Winnie, I know it's a beastly shame and all that, but if you'll share some of those worms with me I'll try it myself. Sly lad you were to bring them."

As the Duffer leaned over to receive a portion of the bait something fell from his pocket and rattled on the rocks. It was the

mate to Winnie's bait can and it was full of angleworms! Winnie grinned. It was a malicious grin and the Duffer winced.

"Well, you see, I thought the Captain might need 'em," he volunteered.

For three miles or so above camp, and for a like distance below, the stream had been bridged by alders felled at the crossings of the trail. The first few of these bridges had handrails of branches to steady the traveler. but others presented only a small, slippery trunk to bear one over the rushing torrent. It was impossible for a man on foot to stem the current anywhere, so our fishing was confined to the six miles or so of the stream that had been bridged.

As the noon hour approached Winnie and the Duffer started back to camp, and soon met a Mexican, coming upstream. He told us that a little further down there was a chap who would not cross a bridge because there was no handrail. He said that he had carried over the fellow's rod and creel for him, and had left him on the other side.

Winnie and the Duffer reached the bridge in time to see the Captain sitting at the far end of the felled alder, rolling a cigarette, for that was the only solace left him. His creel was on their side of the stream, and in it was that for which his heart yearned—his flask of Scotch. The situation was comical but its humor was lost on the Captain. Cross he would not, so the two built a little fire on their side and there they broiled some bacon and some trout, the appetizing odors of which were borne over to the hungry Captain. Save for the flask, his creel was empty—he had not caught a trout.

F. A. Lathe, Photo.

"A HUGE BOULDER ABUTTED INTO THE STREAM."

Just below the camp a huge boulder abutted into the stream and around its bulk a great, dark pool had formed. As we came down stream, we saw Reginald perched comfortably on this rock, a picture of the ideal still fisher, alternately baiting his hook with a fat worm and reeling in a fair-sized trout.

That particular pool seemed to hold an inexhaustible supply, and indeed, during the daylight hours of the remainder of our stay

in camp, some one of us was usually perched there, frankly using bait and as surely catching trout. Flies had been discarded, save those that were entwined in our hatbands, and that lied mightily. As for the Captain, after the first morning he led a triangular existence, with his precious gallon of Scotch (alas! no longer a gallon), the hammock and the dinner-tables as its apices.

This outing was memorable rather for the good time that we had than for the trout we caught, but there *was* a trip made later that season by three of the Flyfishers, when a certain lusty salmon trout—but that's a yarn for another day.

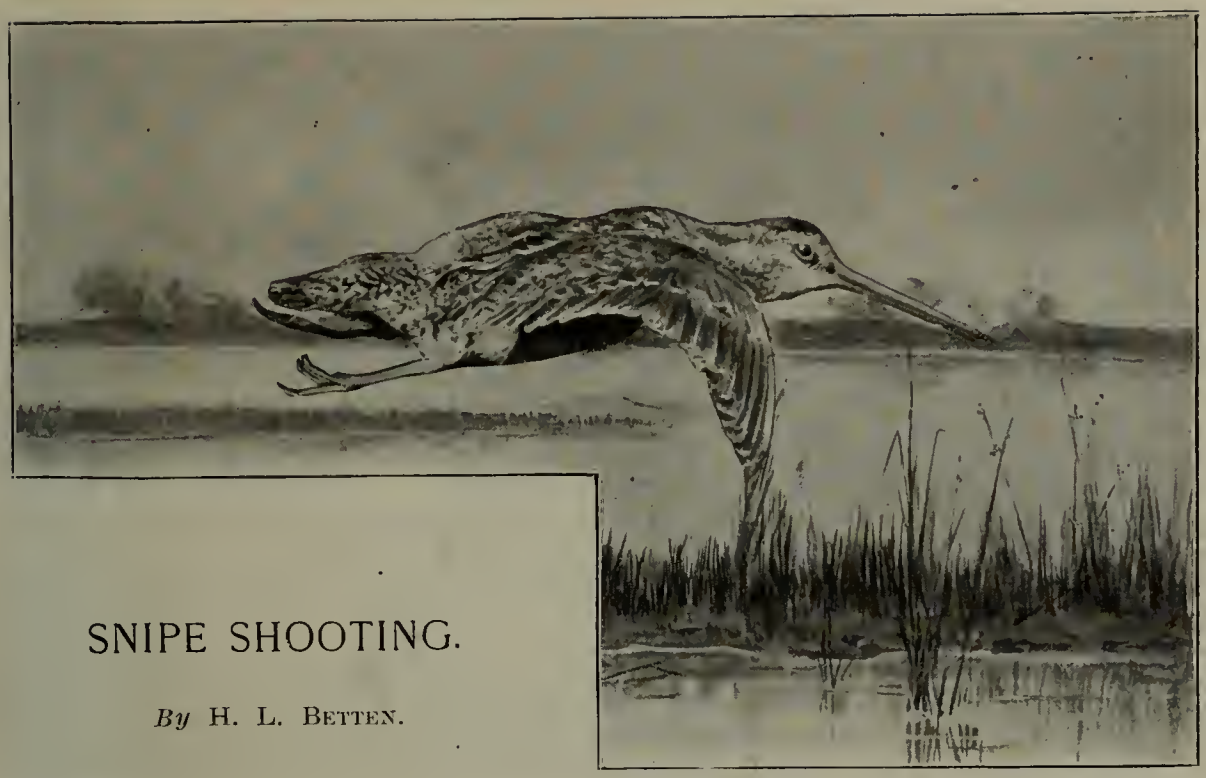
PRETTY SOON.

I'll kneel beside the warm camp-fire
  And watch the bacon fry,
And smell the rich aroma from
  The coffee-pot nearby;
I'll set out with my rod and reel
  'Mid waking Nature's tune,
Returning with a well-filled creel—
  For I'll "camp out" pretty soon.

I'll stretch and yawn beneath the shade
  And think about the boys
Down in the city's smoke and din,
  Far from my woodland joys.
I'll lounge and smoke my briar, and dream
  Throughout the drowsy noon—
I could not ask for more than that—
  I'll "camp out" pretty soon.

Wrapped in my blankets I will see
  The dying embers glow;
And hear the murmur of the stream,
  The night-winds soft and low.
The moonlight streaming over all
  Will gild those nights next June;
A few more days of toil and—well,
  I'll "camp out" pretty soon.

—*Hugh H. Thompson.*



SNIPE SHOOTING.

By H. L. Betten.

SOME satirical chap with an analytical bent of mind has defined sport as exertion in return for which one must make some financial return while any exertion for which you are reimbursed constitutes labor.

An extended experience in hunting *Scolopax wilsonii*, commonly known as jack snipe, Wilson's snipe or English snipe, still leaves me in doubt as to the proper classification of the tired feeling resulting from the pursuit of this erratic game bird; and certainly at times when marshes, meadows, swamps and bogs have been hunted over in a vain search for the elusive snipe, and I return home with aching muscles and the pockets of my hunting coat exhibit a pathetic emptiness, I feel inclined to consider snipe shooting as being so closely akin to hard work that in such an instance one can recognize no dividing line between labor and sport.

Nevertheless when the frosty breath of late autumn is felt throughout the land and the parched earth has drunken its fill of life-giving rain, while in the early morning misty banks of vapor hang over the meadows and along the banks of streams, old desires are reawakened and no peace of mind is assured until the longing for another day's sport among the "longbills" has been gratified. The fatigue experienced in other outings has long since been forgotten and visions of gyrating snipe affording the most tantalizing shots are before your eyes and lure you on to another expedition after the most erratic of game birds.

In the pursuit of our cheery little valley quails there is always some assurance of success, for with a thorough knowledge of their habits, and aided by the keen nose of your willing pointer or setter, they can hardly escape you as they are strictly non-migratory except in certain localities where heavy snows in the foothills drive them down to the lower levels.

Not so with our migratory friend, Wilson's snipe, who comes and goes at such times as suits his fancy. To-day hundreds of his kind may be found in likely localities while to-morrow they may vanish and the most careful scrutiny of their haunts will fail to reveal a bird. The following week perhaps they may be as plentiful as ever and, if weather conditions and an abundance of food permits, may remain for some days or weeks as suits their inclination. No bird is more erratic and with each change in temperature or shift of the wind you may look for a corresponding change in the habits of snipe. When the sun beats down warmly and no breath of air is stirring they will often lie very closely and be loath to take flight, but let a cold sharp wind be blowing and no matter how cautious you

OVERFLOWED LANDS ARE LIKELY SPOTS FOR SNIPE.

may be the snipes' derisive *scaipe! scaipe!* is heard before you have approached within reasonable range and they are off with a corkscrew rush, after which they will likely make a circuit of the field and finally pitch down to cover several hundred yards distant. Mark them down and attempt to outwit them and you will find them ever on the alert and your efforts will result in failures. At such times the birds are seemingly very acute of hearing and the slightest sound will attract their attention and cause them to flush wild.

If there is any one thing which distinguishes the Wilson snipe from the rest of the *Limicolæ* family it is the peculiar corkscrew flight which is particularly noticeable when it first takes wing. Various writers have claimed that the bird performs these evolutions in a cunning endeavor to frustrate the gunner, but I for one do not hold to this belief and consider it due merely to the uncontrollable acts of an irresponsible bird whose vagaries are misconstrued as acts of cunning.

In taking flight and especially if alarmed the snipe spreads its tail like a fan and with spasmodic semi-circular sweeps (due, I believe, to the uncontrollable contraction of certain muscles) swings it from side to side with a peculiar jerky motion. When suddenly frightened into flight, as by a dog or gunner, these sweeps are repeated with amazing rapidity and the result is a series of gyrations which distinguish the Wilson snipe from all other species of the feathered kingdom.

I take no stock in the admonition of the average writer "to hunt snipe down wind" and am inclined to think that the pursuit of Scolopax under conditions which would make it advantageous to walk down wind in flushing them would yield unsatisfactory results. As a rule snipe are very wild on windy days and the slight advantage you may gain by forcing them to rise against it is more than offset by their increased wariness. Furthermore, in hunting with a dog—which is, in my opinion, the only manner in which you may experience enjoyable sport—your four-footed companion is placed at a disadvantage when working with the wind, as the scent is blown from instead of toward him as would be the case when quartering against the breeze and he is certain to make many unavoidable flushes. The best time to hunt snipe is on warm, quiet days such as we often experience in this happy land of ours, and then it does not matter a particle how you approach the birds as long as your dog is possessed of the necessary experience and intelligence to

hunt likely ground and work it over in a systematic manner.

That the snipe is an erratic genius is best exemplified by his habits in feeding, for even when he is known to be present you are not certain to find him in his usual haunts. At times he will resort to grounds as dry as tinder and hide among tussocks of grass or other cover. I have often found him feeding in old cornfields, especially in those on which seepage or an overflow have encroached, and at times he will hide along the bed of sluggish streams overgrown with willows and rank water grasses. On one occasion I bagged seven snipe in a short walk along one of the county roads in Merced County, where heavy rains, a few days previous, had left little puddles of water standing in wagon ruts and slight depressions—certainly the last place in the world to which a snipe might be expected to resort. Another time I flushed three snipe from a series of abandoned post holes and yet there were no suitable feeding grounds within miles of the spot. However, as a rule, snipe will be found on damp or boggy meadows and overflow land as well as low ground which contains sufficient cover to afford them an opportunity to hide. Swampy lying fields saturated by heavy rains are likely spots, but in some of these the soil may be of a sour nature and although they may appear ideal resorts for snipe not a feather will reward your search. Under the most favorable conditions you will find that locating a flight is quite a matter of chance and very often the tyro stumbles upon the best shooting while the experienced sportsman fails to find the birds. It is this uncertainty that adds to the charm of snipe shooting and when one does happen to run across a "pocket," and you answer Jack's derisive squeak with a load of tens which suddenly arrests his wild, gyrating rush while a thin rift of feathers attests the perfectness of your aim, the aching muscles are forgotten and the leaden pedal extremities seemingly exchanged for the winged feet of Mercury. At such times you are willing to make affidavit that snipe shooting is the peer of all sports.

Now as to an outfit: you cannot have it too light for it is useless to attempt to disguise the fact that snipe shooting under ordinary conditions is a strenuous form of sport, and as a rule before the day is over your accoutrements seemingly take on abnormal weight. A seven or seven and one-quarter-pound gun is just about what the doctor would order and a pair of light, snug fitting rubber boots, with canvas trousers and a sleeveless hunting coat should take the place of weighty wearing apparel. If you are a game hog and fearful lest you will not bag all the law allows unless you burden yourself with one hundred shells, by all means do so and your punishment will be deserved; but if you are a reasonable sportsman you will find forty or fifty shells amply sufficient for a day's sport.

A really high-class snipe dog is a rarity for the reason that few sportsmen or trainers find time or opportunities to give their dogs experience on these birds. Nevertheless even an inexperienced dog will prove to be more of an aid than a hindrance and after a few hunts will show reasonable ability in locating and pointing snipe providing he possesses that very desirable quality known as bird sense. Of course he should be a good retriever as the birds are hard to find even when cleanly killed and one will often walk within a few feet of a dead bird without spying it, so closely do its markings blend with the cover to which it resorts. After a hunt the dog should be thoroughly cleaned and dried. By following this course you will often avoid the loss of a valuable animal by pneumonia or rheumatism. A dog that is worth owning deserves to be properly cared for and no sportsman worthy of the name will kennel his dog before he has attended to the gratification of its creature comforts.

And now a few lines anent a snipe hunt, one of many enjoyed by the writer. The scene was laid in the San Joaquin Valley not far from the town of Los Banos. Ye scribe, accompanied by an English setter bitch of aristocratic lineage, and Sam C., who pinned his faith to a weather-beaten old pointer of unknown breeding, had taken an afternoon train from the Oakland Mole and in due time were occupying beds in the Los Banos Hotel. The brief space of time between our arrival and the breakfast hour had been spent in an attempt to woo gentle slumber with only partially successful results, and we were glad when the porter's call gave us an excuse for arising.

After attending to the wants of the inner man we donned our shooting togs, and re

"AN ENGLISH SETTER OF ARISTOCRATIC LINEAGE."

leasing the dogs started off across fields to a section of boggy land a mile and a half distant. The morning had broken bright and clear. Old Sol was peeping over the Eastern barriers and the day bid fair to be a glorious one. For miles and miles the dull grey plains stretched before us until they melted from view where a misty sinuous line marked the course of the upper San Joaquin. As we progressed on our journey flocks of ducks could be seen in the distances as they wheeled over ponds or sloughs. Myriads of geese filled the air with their strident calls and I, for one, experienced an itching of the trigger finger as long wavering lines of these grand birds appeared on the horizon.

We soon reached the sniping grounds and not without misgivings, for the fickle traits of the snipe were known to both of us, and while we had the assurance that they had been present in large numbers a few days previous, we had no means of knowing in what manner our search would be rewarded. However our fears were soon allayed, for hardly had I topped the barbed wire fence which marked the entrance to the grounds when, with a startled "scaipe, scaipe," a snipe flushed from the irrigating ditch on the other side and after flying along the water course for a hundred yards or so dropped in among the water cress.

"There's game sure enough," exclaimed Sam, as he watched the bird take to cover. "Guess we're going to bag at least one snipe before the day is over."

Meanwhile Sam's old pointer, "Buck," whom added years and unlimited experience had endowed with the qualities of a sage, was drawing cautiously along the bank of the ditch to where he had marked down the representative of the Scolopax family, and as the entrancing scent struck his nostrils stiffened out in a stylish point which drew from Sam an exclamation of, "That's the boy! Didn't take him long to nail that one, did it?"

A moment later Muggins, on the other side of the ditch, caught sight of Buck and backed instantly, while Sam, walking up, flushed the bird and made a neat kill with the first barrel. Sending the dogs on, both got to work in a diligent manner and Mug especially ranged very wide and fast: entirely too much so for the best results. As a consequence it was not long before she went straight through a whisp of snipe which scattered in all directions as she rushed by. The majority of these, after going through their usual evolutions, pitched down among thick matty tussocks of coarse grass in an overflowed pasture field, and after reprimanding Mug for her bit of rank work I sent her away in the direction the snipe had taken. Scarcely had she covered seventy-five yards when she wheeled to a point and almost simultaneously Buck pointed. "Now this is what I call proper sport," said Sam, as we walked to our respective dogs.

"You can't beat it much, as long as you find the birds," I answered.

"A WEATHERBEATEN OLD POINTER."

Just then my bird flushed wild and a hastily fired shot failed to connect. My left barrel, however, was a "centerer" and the wily longbill went down like a wet rag and turning a somersault landed on his back in the mud with one protesting foot stuck in the air.

"Good boy!" yelled Sam. "Thought he would get away from you sure when I saw him dodge that first shot. Must 'a' been a good forty-five yards, eh? Now here's *my* chance to shine, so just watch *me* do the honors."

Flushed within a few feet of his dog's nose the bird gave him an easy quartering shot, but nevertheless he scored a goose egg and gave vent to a few uncomplimentary remarks as he watched the snipe disappear in the distance. The next point was Buck's and Scolopax had not proceeded more than ten yards on his zigzag journey when a load of tens connected with his solar plexus and one minute later he was reposing in Sam's coat pocket. Another find by the irrepressible Buck gave me an opportunity to distinguish myself, which I did in commendable fashion. I followed this with a long shot on a quartering bird which flushed wild and started off as if he had an urgent engagement somewhere.

"There now!" exclaimed Sam. "I'd 'a' bet ten dollars on that bird's chances of getting away. A good fifty yards if it's an inch and killed dead as a stone!"

Mug now had a short inning and Buck was given an opportunity to back, something he did not fancy very much. Two points resulted in the addition of two snipe to our bag and then we left this field for the adjoining one, where a number of birds had been seen to take cover. Crossing a piece of unusually soft ground we sank over our knees in the mire, and after traversing a hundred yards or so of such going Sam ejaculated, "Gee Willikens! This is worse than Indian torture! I've dislocated about every joint in my body. Say, I'd like to know why in Cain you're leading me through this bottomless pit? Darn it, this is another case of a blind man being led by a fool. Hang it all! There goes one of my boots." I laughed at him as he tried to extricate his boot, which had been partially drawn off by the adhesive mud. The next instant he lost his balance and stretching out one arm as if to fend off the threatened disaster, plunged forward into the mire. For a moment he lay in the embrace of the sticky ooze and then arose murmuring a gentle prayer for the salvation of my soul. Not wishing my mirth to be responsible for further complications I moved on, followed by a sulphurous streak of an azure hue which clung to the bog like a miasmatic vapor. Fifteen minutes later, with the mud scraped from his clothing and with his ruffled feelings smoothed down, Sam forgot all about his late adventure and all was serene again.

Entering the adjoining field where walking was much better, the dogs ranged out wide, Mug making long casts up wind and showing considerable judgment in working out her ground. It remained for Buck, however, to show a degree of ability hardly to be excelled, for although not as fast as his companion, his great bird sense and choke bore nose landed him on point after point with very few errors to his discredit. This field netted us eleven birds and Sam now having what he termed "his snipe eye" with him his old Lefever accounted for the birds with a regularity that was monotonous. Walking along a ditch I also surprised a mallard taking a siesta among the matted growth of weeds and grasses which lined the bed, but it was only in response to my second barrel that he condescended to come down. We then rested for an hour or so and finally started back toward the hotel, following a ditch bank which offered firm footing. Ranging on ahead, Buck caught scent of a bird which evidently was moving as he would cautiously draw up and point and as the snipe continued along the course of the ditch would cast off and repeat the performance until he must have traversed forty or fifty yards. Finally becoming tired of the birds' antics he rushed on ahead a matter of twenty-five yards and headed off the longbilled pedestrian. Sam walked up with the air of one certain of his game, and in answer to my warning "to look out for goose eggs," replied, "Oh, that's all right. Just let the little beggar start and I'll tend to his ———. Well Jiminy Fishhooks! Wouldn't that beat you! Could 'a' reached him with a fishpole!" he exclaimed as in an apologetic manner as the bird put distance between them. Two more points by Buck soon gave Sam an opportunity to repay the snipe family for the presumption of one

of its members in daring to escape his aim, and he accounted for both of them.

Mug now had another short inning with the "longbills." First she made a point near the edge of a patch of tules and Sam shook his head as he said: "No snipe in there. Bet you a 'tenner' you don't raise a feather." Hardly had he spoken when up jumped a brace and I improved the opportunity to make the first double of the day. Both birds fell in the tules and Mug could find only one of them, but Buck, with that unerring nose of his, located the other after quite an extended search. Mug next dropped to a point beside a fence, the bird evidently being on the other side. Just as I started to clamber over the snipe flushed and sliding up the safety I managed to knock it down from my unique position. Crossing the piece of ground on which I killed this last bird Mug floundered through a bog to a ditch bank beyond where she pointed. I attempted to reach her, but the nature of the ground would not permit. Several times I went on my knees in the treacherous mire while Sam on solid ground watched my gymnastics with evident pleasure. Finally I attempted to call her from her point but she was too much interested to notice my commands. Knowing that she would be likely to remain on point as long as the bird did not flush I fired several shots at random and at last the bird took flight, much to my satisfaction.

As we advanced the nature of the grounds improved until at last we struck a veritable "snipe pocket" which proved the best find of the day. We shot until we found our supply of ammunition giving out and then, concluding that we might be classified as game hogs if we continued shooting as long as a shell remained, we left the patch with the intention of paying it another visit before we left for home. Arriving at the hotel we counted up and were surprised at the number of birds the morning's hunt had yielded. We did not have an opportunity to indulge in another snipe hunt as changed weather conditions made it impossible, but the pleasures of the outing herein related are still fresh in my memory and shall not soon be forgotten.

SPORT IN AFRICA.

By Elmer E. Davis.

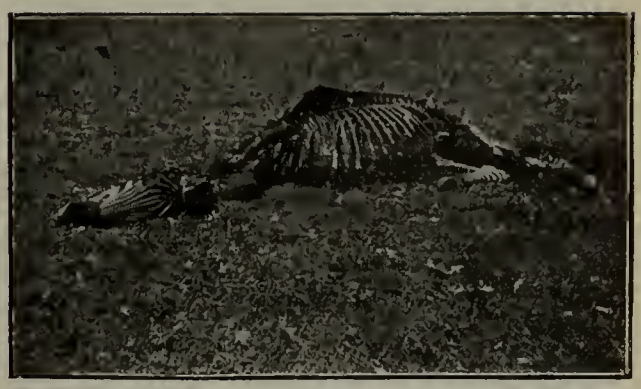
Part III.

E had been very much disturbed all night by zebras running about and barking in a peculiar manner as if greatly alarmed. I knew something was wrong and arose during the night to find Monga, the gun bearer, and ask him what he thought was the matter with the *Punda* (zebras). "Oh!" he said, "nothing is wrong—only a lion trying to get one of them for breakfast."

They seemed to quiet down toward morning and we managed to get some sleep, but were aroused by Monga while the stars were yet shining. He said there was a possibility of finding a lion eating a zebra out on the plain near camp. As lions generally leave their prey at daybreak and go into the tall grass or jungle, a person stands very little show of finding them after the sun gets up very high.

I was wide awake at the prospect of finding a lion, and lost no time in dressing. Mr. Snowden, who was still with me, seemed as eager to meet the much-talked-of lord of the animal kingdom as myself. We did not bother with breakfast but called six porters and hurried along the edge of the jungle to where we expected the lions to come, so that we could head them off. As it was still dark we waited until the light grew strong enough to see some distance out on the plain; then we separated, Mr. Snowden going farther along the jungle and myself returning in the direction of camp so as to take in as much territory as possible.

I had scarcely gone two hundred yards when I saw a lion and lioness half a mile out on the plain. They stopped as I appeared on the sky line and I knew they had seen me. Signaling to Mr. Snowden, he came running up and we both entered the thin brush near the edge of the jungle and ran as fast as we could to try and head the lions from the thicket. We caught an occasional glimpse of them through the openings and could see they were losing no time in



ZEBRA KILLED BY LIONS NEAR AUTHOR'S CAMP.

their efforts to get under cover, for they were running swiftly at right angles to us. The race was short but lively; the lions beat us about forty yards and we could hear the brush crack as they entered the jungle.

We stopped running, and finding the track —which could easily be seen by noting where the dew had been knocked from the grass— we followed it for an hour or so, winding around almost in a circle; then the sun, getting higher, dried the dew and the trail was abandoned by two disappointed hunters. I was sadly disgusted, for instead of the lordly "scrapper" which I had expected to find, these lions were far more anxious to get away than to fight. I am well aware, however, that this is not always the case, and I hope some day to meet one that will be accommodating enough to let me shoot him.

With the reader's consent I will explode some of the pet theories in regard to lions and lion hunting. My knowledge has been gathered from hunters who have killed many lions and I think their statements are undoubtedly true. In the first place, a lion is a beast you can tell nothing about for a certainty; what one will do, another will not. They seldom charge a human being in the daytime unless wounded or cornered; they are cowardly in the day but bold after dark. Their home is the plains, although occasionally they hide in the jungle, but more generally make their lairs in the tall grass or reeds in the open. The male never does

A NEKURA DIVISION LION.

any killing when his mate is around, for she is so much quicker that it is not necessary for him to exert himself, and the pictures you see of the males leaping ferociously at animals may be put down as the reflections of a lively imagination. They usually hunt in couples and the lioness invariably makes the kill when so in company. In charging, a lion runs close to the ground, and not with long, oval leaps, as the picture makers' imagination leads one to believe. They do not go around with their heads held proudly up, but amble along with their heads down near the ground in an awkward manner. There is, however, one point on which all lion hunters agree, and that is that a fully aroused lion is a nasty antagonist and a hard beast to kill.

After losing track of the lions we returned to camp and prepared to go out on the plain after gazelle, as we were short of meat. We were eating breakfast when a porter came and told us the zebra which had been killed lay close to camp. Taking my camera, I went to get a picture, and was surprised to find, not more than four hundred yards from the tent, a zebra skeleton which had been picked pretty clean, for what the lions had left, buzzards and carrion birds of different species were doing away with at a rapid rate.

By nine o'clock we had started for the plain, Mr. Snowden going one way and I another, as neither of us cared to hunt close together, on account of not being able to see each other all the time, and the further possibility that a stray bullet might find one of us; for even in that country of few white men not a year passes but someone is killed by careless handling of firearms.

Plenty of gazelles could be seen on the plain but they were very wary. After three hours' tramping I had not fired a shot, for the little fellows ran around just out of gun range, closing in behind me in such a tantalizing manner that no matter which way I turned they were all around me and seemed to enjoy the fun they were having at my expense. I had begun to despair of getting any meat, when a porter said he would bring the *Swarrow* (gazelle) close to me. "Sit down here, *Bwana* (master), in this grass; we will go ahead and the *swarrow* will come close." I caught his meaning at once and hid in the grass, which was in little patches here and there, eighteen or twenty inches high. The porters continued on and the gazelle soon worked around in my direction, enabling me to kill two bucks before they

PORTER, WITH THOMSON'S GAZELLE.

A GOOD "TOMMIE."

could get away. Two porters came running back to take the meat, while I rejoined the others and played the same game again, killing one more buck; but this was the last, for they refused to come near our tracks again that day and seemed quite wild.

These gazelles were of the variety *Thomsoni*, but locally known to sportsmen as "Tommies." They are pretty little animals, weighing not more than twenty or twenty-five pounds when dressed. Their color is a beautiful deep orange on the back, running to white underneath, with a black stripe on each side from the ribs to the flank.

Early in the morning they will be seen scattered all over the plain, but as the sun gets higher they work closer together until herds are formed, sometimes containing great numbers, one or two hundred being considered only a fair-sized band. These herds will be feeding in different directions, and it strikes a person as very odd to see all bucks in one herd and all does in another, this being the invariable rule when out of the breeding season. At the latter time there is a general scattering, the bucks quarreling and trying to hold as large a harem as possible, and many small bunches of old fellows will be seen which have been driven away by the young bucks.

When the young are born the mothers band together and leave a number of the miniature gazelles in the grass close together while they are feeding, and it is a comical sight to frighten these little fellows and see them jump, for, as the porters say, they "*zuenda jew embele n quienda hoko moja*" (go up twice and go ahead once), meaning that they jump twice as high as they go ahead; this, together with the fact that they appear to be all legs, presents a very grotesque appearance as they hurry away, but when once started they seldom stop short of a mile unless the old ones round them up, which is generally the case. I have several times seen the mother try to stop her lively offspring by getting in front of it, but the young fellows, being too frightened to stop, leaped over them and scurried away across the plain with the mother in hot pursuit.

Zebras had been near us all the time and the porters were begging me to kill one, as they are very fond of *punda nyama* (zebra flesh)), and say it is the best meat on the plain. As we were after meat, I yielded to their entreaties, and selecting a young stallion, knocked him over with a shot through the heart. When I came to look at him I felt sorry that he was dead, for such a beautiful creature should surely not be killed. He was as clean as a society dandy and the black and white stripes, contrasting in a pleasing manner, gave him the appearance of being more than a work of art. It was too late for regrets, but I made up my mind never to kill another unless as a matter of absolute necessity.

Leaving all the porters to bring the meat to camp, I walked along the dry bed of a stream in the direction in which a pair of ostriches had been seen earlier in the day. After walking a mile or so they again appeared and seemed to be headed for the same watercourse along which I was walking. Thinking it possible to get a shot at them, I

MY FIRST ZEBRA.

READY FOR THE JUNGLE.

made my way cautiously along in a stooping position until directly ahead of them, should they continue in the same way.

Now it was a question of patience on my part, for at the rate they were coming it would be over an hour before they were close enough for even a long shot; so I settled myself as comfortably as possible to wait their approach.

It was very nice there, sitting on the soft, warm sand with my back propped up against the bank which rose four or five feet above me, and having passed a bad night, I went to sleep. I could not have been long in that condition when a snort aroused me, and looking up I saw a line of zebras on the opposite bank gazing at me in a curious manner. They appeared undecided whether to run or make a closer inspection, but soon ran away, making a great noise. Jumping up, I ran to the opposite bank and looked around for the ostriches. They were about forty rods away and going like the wind, with their little wings extended full length. I watched them for some time, but they never stopped while in sight.

Leaving the watercourse, I headed for the forest a short distance away, intending to walk along its edge toward camp. I was surprised here to see numerous tracks and dung of buffalo (*Bos Kaffeir*). I had seen none of these animals so far and had been led to believe that the rinderpest exterminated them in that vicinity some years before, but here was proof that quite a herd had been feeding close to the jungle, four or five miles from camp. The jungle here was broken up by narrow openings, and entering one of these I followed it carefully for some distance, hoping to see a buffalo, but they go into the thick bush during the day and it is seldom one can be found in sight. They had paths worn in several directions through the forest and there must have been quite a herd but I could not find them—and it is probably a good thing that I did not, for a light antelope rifle is not the best gun for buffalo, though it would kill them if the spine was hit; the heart shot don't count with these brutes, for you might be killed while the beast was dying from a bullet in that organ.

PART OF OUR PORTERS.

THE AUTHOR.

Although I found no buffalo, something

REED AND WATER BUCKS.

did appear which pleased me almost as much. As I was cautiously examining every nook and corner of the numerous openings, something red appeared. Working around in order to get a better view, I could see a "reed-buck" with a fine set of horns; he was nibbling the short grass in an opening sixty yards away and I watched him for some time, as he was not in a very favorable position for a shot. Finally he turned broadside and I let him have it. He stood for a fraction of a second and shivered, then with one leap disappeared in the brush. I knew he was as good as dead, for the shot must have struck the heart, so by following the blood marks he was found in a clear spot two hundred feet from where he had been shot. The bullet had hit a rib and "mushroomed," tearing a hole on the opposite side large enough for me to shove my fist in. Upon cutting him open the heart was found to be blown to pieces, with hardly enough left to recognize.

DRESSING THE DAY'S KILL.

The reed-buck is of a red color and inhabits any part of the watered country in British East Africa. It prefers the tall reeds or grass, but will occasionally be seen, as in this instance, in the open places of forests. The horns are from six to twelve inches long and curved forward. A full-grown buck will probably weigh fifty pounds when dressed.

Several months later I had an experience with a doe reed-buck while hunting for lions in the Nekura reeds. Mr. Leuder (an American) and myself, with some porters, were beating through the reeds, making all the noise possible, when a large doe leaped up not more than ten feet from me. As I caught a glimpse of her tawny side the express

HEAD OF GRANT'S GAZELLE.

rifle went up, for I thought sure it was a lion and I almost pulled the trigger. Mr. Leuder, who was close by, declares I jumped as high as the doe, and maybe I did, but if that had been a lion two express balls would have found him pretty quick.

After hanging the reed-buck in a tree where the porters could find him, I returned to the open just in time to see a long string of Grant's gazelle (*G. Grantii*) running across the plain in the direction of Lake Nekura. This was a sight not often

seen even in that country of large herds of game, for this species generally travels in small bunches, but this bunch must have had nearly a hundred in it, all bucks, and as they ran in single file after their fashion it was quite a sight, for their long, gracefully-curved horns, together with the wonderful order they keep in running, attracts the attention of anyone, and I think Grant's gazelle may be classed among the handsomest of African gazelles.

Walking along the edge of the bush, I reached camp late in the afternoon and found Mr. Snowden already there. He had killed one hartebeest and one Thomsoni gazelle. The gazelle must have been some relation to one of mine, for the horns measured exactly the same in every way, with the same shape and general curve. He presented me with the horns from his buck, for he said horns so near alike should go together, and they are now side by side in my museum.

While eating dinner this evening we were pleased to receive a call from Mr. Body, a locomotive engineer. He had stopped his train on a siding near our camp and walked over to take dinner with us. Lions, he said, were becoming a veritable scourge at Nekura and nobody dared go out after night. The railroad had also abandoned night work since an experience he had gone through a week before, which I will tell in his own words.

"We had brought in a train of fourteen cars from below, with orders to run through to Elburgon after receiving 'line clear' at Nekura. I whistled for signals at the yards but could get no answer, and after waiting for some time, steamed slowly ahead. I was nearly opposite the depot when I saw a large lioness directly in front, not more than thirty meters away, with the headlight shining on her. She sprang to one side, and being afraid she was coming my way, I pulled the whistle with one hand and started the engine with the other. The sudden start threw the fireman on his head among the coals, but he had also seen the lion and was pretty well scared. Well, we ran that train up and down that yard from three in the morning until daylight, blowing the whistle almost continuously. We never saw the lioness again, but have no ill-feelings toward her on that account.

"I went to see what had happened to the guard and found he had locked himself into the brake van, as he suspected something was wrong. The station agent was terribly frightened and would not open the depot door until I assured him the lion had departed. According to his story a pair of lions had entered the town about dark and seized a donkey, which they carried under the house of Mr. Boyce (chief engineer of maintenance of Uganda Railroad and one of the very few white men residing there at the time). The racket made by them caused everybody to get under cover. Mr. Boyce had gone out on the road the day before, so was not there to avenge the insult of having the lions kill his own donkey and take it under his house to eat. They were no doubt leaving for the plains when I saw the lioness.

"This and several other occurrences have caused Mr. Whitehouse (superintendent Uganda Railroad), to issue an order that no trains run on the Nekura division from 6 P. M. to 5 A. M. until further notice."

Now I hope the reader will not get an idea that lions were as numerous along the Nekura division as the proverbial fleas on a dog, for possibly there were only four or five in the vicinity; but that number can do a great deal of damage when they set their minds to it, and after terrorizing the neighborhood they have a habit of moving on and no more will be heard of them for a while, when suddenly they will turn up again at some other point and repeat their performances. This leads to a great overestimate of their numbers. They are plentiful enough, nevertheless, to keep expectation at a strained pitch, and can be found by anyone who has the lion-hunting lust in his system and the "nerve" to gratify it.

EARLY WINTER IN THE FOOTHILLS.

By Perry D. Frazer.

THE SUMMER days had been so beautiful, the autumn hazy and dreamy and warm, November so not unlike the coming of autumn, that we at the ranch found it difficult to believe that winter was actually upon us, when, one December morning, we looked out of the cosy dining-room and saw the hills dotted here and there with patches of wind-blown snow, while the gale that had arisen in the night continued to howl round the eaves of the great stone house and moan among the scraggy cedars that saved the mountain slopes from absolute barrenness.

That morning there was a skirmishing for warmer clothing and protection for the hands and feet. I recall with pleasure the solid satisfaction of donning a new flannel shirt and gloves that had been received a month previously from the good people at home in the far East. This shirt was made of the heaviest blue flannel, was lined about the chest and shoulders, and had several ample pockets. It was sewn with yellow silk, and no suit of evening clothes could have been commented on more favorably in a cloakroom by one's intimate friends than was that garment by the hearty cowpunchers who gathered about. And the gloves were of good thick buckskin, warmly lined. Priceless treasures were these in a land where the flannel shirt was universally worn by all men.

Dressed thus, with only cap, trousers, Navajo moccasins and a cartridge belt to complete the outfit, after breakfast one morning a few days later on I took the old single-shot rifle from its pegs in my cabin, thrust my arms through the straps of a pack, lighted a pipe, and swung off up the stage road, as happy as if all those miles of government land were mine. The day was perfect, just as other days had been and would be. The air was cool but clear, the sun's rays warm, the north wind bracing. There would have been ice had there been water to freeze, but as a matter of fact water was scarce in those hills, and while the snow lay heavy on the lofty peaks, and even lower down among the piñons of the northern slopes, my moccasins left deep imprints in the dust of the one-track road.

Gradually this winding road ascended to a divide and swung off eastward, as straight as an arrow for twenty miles. Beyond the divide I turned into a crooked trail and followed this northward until it lost itself in countless other trails leading in every direction. But the way was plain, and skirting the higher hills I passed through a narrow cañon and sat down on a ledge to rest and admire, for the thousandth time, perhaps, the beauty of the great valley stretching away to the east and north. But while it was a valley in fact, so limitless did it seem to one viewing it from an eminence that its depth was lost to the eye in its great ex-

"ALL THOSE MILES OF GOVERNMENT LAND."

A LOOKOUT OVER MILES OF OPEN.

panse. Northward the great ranges near the Colorado line gleamed white in their blanket of snow; eastward the nearer mountains loomed distinctly, under their cloud-caps, but still they were in fact sixty miles away. Southward Texas and Mexico were located by the hazy outlines of their mountain ranges, and westward could be seen the peaks beyond which lay Arizona.

Coming back to nearer objects, I fell to picking out landmarks that were significant. "Yonder," I mused, "under that big soapweed, we camped for a month in the summer; and over by that bunch of junipers I killed the antelope the ranch folks found so welcome because they were short of meat. Down in that little draw, in October, I finally came up with the antelope I had wasted my third and last cartridge on that morning, and got bunted roughly when I cut its throat. That patch of black is our 'furthest north,' because of the lava"—and so on until many familiar spots had been located. But not a few of these places were fifteen to twenty miles distant, although they were plainly visible in that rare atmosphere.

Taking up the pack again, I picked my way gingerly among the patches of prickly pear and ground cactus, wishing I could have some of the bunch-grass in my windbreak for a bed without wasting the time necessary to cut and carry the light stuff. Crossing arroyas, draws and cañons, startling a jackrabbit here, a mountain quail covey further on, and a hawk in another place, I came to my destination. There the timber, extending from far back in the mountains, ended in a narrow point of piñons and juniper, giving one shelter, and at the same time a lookout over miles of open ground. In other days this was a favorite camp site of the Mescalero Apaches, and antlers, skulls and bones of hundreds of deer lay bleaching in the open, while the elements had not as yet obliterated the remains of their windbreaks.

A space was selected where several piñons gave shelter from the elements, and going further back I cut a number of small trees and trimmed off the branches until there was almost a wagon load of the stuff. Beginning with the heavier ones, I placed them on the ground in the form of a horseshoe, the extreme ends of the branches forming the inside of the shelter. Piñon and cedar tops and boughs were added until, when the work was finished, my windbreak was some forty inches high and the interior eight feet in length by five in width, while the opening was but three. So closely were the boughs bedded together that no cold could come through the shelter. Finer boughs were trimmed off for the bed, and when this was several inches in depth, pine straw was thrown over it, the blankets folded on the canvas sheet, the lower end of the latter thrown over all, and the fire looked after.

Nothing could be easier. Hard by were numerous windfalls where juniper as dry as powder and pitch pine stumps and logs

PLENTY FIREWOOD.

"NORTHWARD THE GREAT RANGES NEAR THE COLORADO LINE."

could be knocked into proper lengths with the hatchet. Enough of these for two days' supply was dragged under the trees. Then the provisions were hung up on a limb over the windbreak, out of the way of camp-robbers and coyotes, and the kettle and coffee-pot were filled at a tank some of us had discovered while hunting. It was far up among the rocks and was replenished by a sort of overflow from a cañon during cloud-bursts in the rainy season. So far as I knew, this was the only water within seven miles, and only small game could reach it, as it was in a stone basin worn by the rush of flood water in countless years past.

There was still daylight sufficient to try for game for dinner; therefore, carrying the rifle and some lightly loaded cartridges I skirted the foothills and rocks, seeing numerous jacks, cottontails, and finally a covey of mountain quail. These pretty birds were never hunted, and stood gazing stupidly at me from their cactus shelter until one of them was decapitated with a bullet, whereupon the others ran a short distance, took wing, alighted within a hundred yards, and ran again until the cover of the piñons was reached. Dinner was thus provided for, and further on a cottontail was added to the bag against the needs of the morrow; the rabbit was hung in a tree at camp to freeze, while the plump quail was cooked over the fire before the windbreak's open end. Coffee, frijoles, fried potatoes, warmed-over cornbread and quail made a full meal, even for Christmas day. Out in the open the night was cold, but lying on the blankets, sheltered from the wind, with a goodly pitch-pine fire throwing its heat into the windbreak, there were worse places in which to pass a night. While the coyotes sang their even-song I smoked the cob pipe of peace, replenished the fire, and turned in.

At dawn I awoke to the conviction that a rifle was a mighty cold bedfellow, and that a good fire and hot coffee were preferable to the blankets and tarpaulin in that frosty air. The coyotes were serenading the rising sun as I stepped out into the timber, and the hour was favorable for a shot or two at some of them. There was always the chance, too, of catching a big gray wolf napping, and this I realized as I slipped along, for one of them barked not far away while I was making camp snug. Coyotes were always game to us in those days, for, if there were no other scores treasured against them, one glimpse of a cow and her new-born calf hemmed in by a circle of these rascally brutes and prevented from feeding and sleeping, to say nothing of going for long agonizing hours without water, was enough to make any man with a heart in the right place anxious to take a pot shot at every sneaking coyote that crossed his trail.

I had not gone far that winter morning ere I saw a coyote hunting, perhaps for cottontails emerging early from their burrows, or quail huddled under protecting soapweeds. It was not a long shot, there was a leaning trunk of a piñon for a rest, and in a few minutes the coyote's pelt was on a V-shaped stretcher, hanging fur side in on a limb in camp.

In the valley the bunch-grass was very

"A FAVORITE CAMPSITE OF THE MESCALEROS."

wet from the hoar-frost at that early hour, so I kept in the timber, picking off three cottontails and two quail within an hour, and missing three more of the latter in as many shots as the nervous little heads were jerked this way and that. With the big caliber rifle it was of necessity that head shots only were attempted, as, when struck elsewhere a quail was wasted, no flesh being left for camp meat. Deer trails were there among the trees in the tiny parks in great abundance, and twice I obtained glimpses of great ears thrust forward momentarily; but both were does, and while there was no close season in the Territory at that time, there was an unwritten but sacred law among the ranchers which said female deer and antelope, as well as little fawns, should not be molested, save in the stress of necessity, for food. This exception was seldom availed of, however, for of rabbits and quail there was an abundance, and although the jacks were not relished for food, the cottontails were quite toothsome if properly cooked. I preferred the mountain quail, and although it was not an easy matter to behead many in a half day's tramp, so large and plump were these dusky beauties that one or two satisfied a hungry man who had Mexican beans and other solid food to help fill out a meal.

Working along the foothills where the trees were sparse, a momentary glimpse was had of a small band of antelope a mile or more away. Evidently they had been feeding on the south slope of the hill where they were seen and something had startled them. The wind was in my favor, and they had not seen me, for I had skirted the timber. Puzzled, I watched the slope beyond the hill round which they ran, and presently they reappeared beyond an arroya, running at top speed. Four? There were five at first, or I counted hastily. Ah, the thing was explained. The faint report of a rifle shot was wafted down the wind. I was not alone in the great valley, but at the time could see nothing of the hunter.

The antelope disappeared again in one of the many shallow draws, and as their course down the valley would take them nearer me if I gained a certain position in time, I made for that draw at full speed, dropping my small game on the way. It was a far cry, and although I kept out of sight of the band by following a draw that opened into the main one they were following, and the junction of the two was the point I wished to gain, I was distanced and had to watch the band whisk past the open space and disappear over rising ground while I was still two hundred yards away. True, I saw them again and again as they appeared at intervals in following a beaten trail leading toward the bad lands, but I was blown and the range was too great for snap shooting.

Turning back, I recovered the string of small game abandoned on the way, gained higher ground, and sat down to pick sundry cactus spines from moccasins and feet. Cactus and haste were not on friendly terms in that country, and it was not at best a region for pedestrians. Meanwhile I watched the other hunter, who had appeared. He was riding, with two horses in tow, toward my camp. One of the led horses was saddled but bore the antelope, while the other one

carried a pack. It was Texas, one of the cowpunchers from the ranch, and it was my pony that bore the game. Texas had prepared a pleasant surprise for me, for, said he afterward, "I calc'lated you'd have a tough pull over the divide with all that stuff o' yourn if you got anything big. An' you didn't get nothin' big, after all—nothin' but six-shooter game. Well, well! An' old Tex. jest happened on them there antelope as he were ridin' 'long easy like, wonderin' where you were hangin' out."

Texas was a good shot and hunter, but would never take credit to himself for this fact. And if he knocked a jackrabbit over with a bullet from his six-shooter, he generally "jest happened to hit it."

"Going to stay a week here with me, Tex.?" I asked, with an eye on the packhorse bearing his bedding and a couple of water jugs.

"Well, no. I did figger on bunkin' out with you a couple o' days, but allowin' as we've had some good luck, I don't care if I sleep to home, 'stead o' here, bein' as how we don't have to. Jest as you say, howsomever."

"Well, let's build a good hot meal and then go back and ride over toward the Blue Range to-morrow. Perhaps we may see something else to shoot at on the way back to the ranch. I did intend to stay here until to-morrow, but there's not much water in the tank yonder now, it has been so dry, and the horses will drink all you brought along."

"Bueno de burro," said Texas, and there was antelope steak on the dinner table at the ranch that night.

MOUNT OF THE HOLY CROSS, SANGRE DE CHRISTO RANGE, COLORADO.

OUR WASHINGTON BEARS.

By Frank Mossman.

THE bears here in Washington are of a medium size and generally are dark in complexion. In the winter these bears wear warm, thick clothing, but in summer they don't wear much more than a roach mane of frizzled hair along the spinal column. Their food is—well, anything, from a cake of honey to a well-greased pile-driver. In the human family some individuals prefer the fat and some the lean of meat, but all meat looks alike to our bears, and the longer it (the meat) has departed this life, the better it suits Brer B'ar.

I have known a bear to go to a carcass of a mule (the said mule having passed in his checks a week before) and take a mule-tail shampoo and nine-course dinner from his remains as they lay in state, while the people residing in that neighborhood were wishing the mule had died in some other State. Our bear is a great lover of honey; he will knock a beehive over with one paw and fight off bees with the other three while he dines on the tenderloin of honey steaks.

He is also very fond of pork; it does not make any difference whether the hog is a full-blooded Durham or that famous Washington breed known to science as the *razzure backus*, our bear will impartially gather him in his arms just as mommer does her baby boy, and every time the hog squeals Brer B'ar will cuff him (or her, as the case may be). When the bear has finally reached the tall timber with his pork supply, he will sit on his haunches and cuff it into chops, spareribs, sausages and other cufflets conveniently sized for quick mastication.

I well remember some fun I had with a bear that was trying to carry off my winter's supply of pork. I had been to a country dance all night, and on returning home just at daybreak I heard my porker yelling for help. My gun had been loaned out, so I grabbed the first weapon handy—which happened to be a pitchfork—and bravely sprang to the rescue. I was greatly handicapped by having on my Sunday garments, including my swallow-tailed spike buck coat, though this coat helped me later on in my battle. The bear did not pay much attention to me until I gave him a hard poke in the neighborhood of his dining car; then the fight was on.

We sparred for an opening and by and by the bear thought he saw one and made a swipe at me, landing on my hash machine. Feeling that I could fight better with my working-clothes on, I started to the house to secure them, but the bear kindly removed the difficulties with most of my Sunday clothes *en route*, and it was now ten to one on Bruin, when a couple of young ladies happened along. The sight of a bear chasing a wild-eyed man, who was only partly dressed in a pair of poorly matched sidewhiskers, was too much for the ladies' nerves, and they unbuckled a few screams, at which the bear released the yelling hog and turned his attention solely to me.

Then it was that my clawhammer coat showed almost human intelligence. Seeing better fighting ground on a tree about a mile away, I started for it at once, my clawhammer coat-tails flapping up and down in the bear's face so fast that he could see nothing else except the dust I kicked up in my haste. I finally reached the tree, from where I was not afraid to face a dozen bears in a running fight.

On another occasion I was out with my dogs on a bear hunt and they ran a bear into a big hollow cedar. Coming up the tree, I sent my dogs in ahead, and as they failed to start him out, I went in to investigate. I peered up in the darkness of the tree, and seeing and hearing nothing, I began to think the bear had dodged the dogs, when I heard something slip. It was not the bark on the tree, either; it was the bear. I made for the hole in the tree—so did Bruin, and we met. He seemed real glad to meet me—so much so, indeed, that he hugged and pawed me over with such affectionate fervor and abandon that I was too much surprised to be coy and say "Oh! This is so sudden!"

I really thought he was going to annex me against my will, but through a slight mistake on his part I got out and a shot ended the flirtation. If you want to swing around on the tail of a cyclone, just get in a hollow tree with a healthy bear and three or four big hounds!

In my happy youthful days it was my dearest wish to own a menagerie of bears. One lucky day, chancing on a pair of cubs in the forest, I gathered them into my arms and started joyfully homeward, and was congratulating myself on having secured a happy nucleus for a Wild West aggregation, when the old lady bear came on the scene and asked to be included in the collection. As my project did not contemplate a three-ring attachment, I dropped the cubs—also my great combined show scheme—and fled for life to home and mother.

I once set a trap for a bear; in fact, I set several traps for him. I made a stout pen in the forest, into which I put a hog, which was fed only once in the ensuing two days. The way he yelled for more rations was heart-rending, and the bear heard the rumpus and came up to see about it. He began his investigations by walking around the pen and in so doing put his foot in a No. 5 Newhouse trap. There were several more traps there, but he did not seem to care to go any deeper into the subject and staid there until I went out and called on him and introduced Mr. Winchester Gun to him.

Late in the fall our Washington bears fill up on salmon, then crawl into a hole and pull the hole in after them to keep out the rain. I found a bear hole once and started in to make a social call. This bear being one of the unemployed rich and given to stylish doin's, had hired a family of skunks to tend door for him, and they, although they refused me admittance, very politely presented me with a bouquet as I retired. I may get old and gray, but the scent will linger in my chin whiskers for ever.

I had a pet bear one time, way down on the old farm, years ago. He got loose one night and came into the kitchen, where he ate a keg of softsoap, two rolls of butter, a half sack of flour and grandpa's cowhide boots, with various other little things too numerous to mention. The poor bear fell into the well that same night, and was unfortunately strangled.

It is pretty wet work hunting bears in Washington, as it is either raining, just quit raining, just commencing to rain, or looks like rain all the time. Then, again, the fall rains set in sometime in the spring. All this dampens the bear hunters' ardor in the wilds of Washington, and results in a good many of the brutes being left for seed. The consequence is that while they are not exactly as plentiful as fleas on a dog, there are still enough of them left to scratch up an acquaintance with if you are at all disposed to float on the ursine swim.

ON EMERGENCY RATIONS,

By Morris Gibbs, M. D.

ID you ever eat any dog biscuit? I have, and they are not half bad, and as far as a food is concerned they fill the bill perfectly, though they are in no sense a delicacy for æsthetic individuals—whether sportsmen or anyone else. I have had experience, and I know something about the matter; so here goes for the story.

We—that is, Hank and I—often go hunting, and have hunted in thirteen States and Territories together, and over a period of seventeen years. In our adventures we have often gone hungry and have learned, by the experience that teaches a dear school, that the true way to hunt is to carry something in the pockets of your hunting coat at all times. Yet in the face of this knowledge, gained by hard knocks and semi-starvation, we occasionally fool ourselves. For in hunting with the pockets full of shells, game and other accoutrements, it is a common matter to drop the lunch in some convenient spot and expect to pick it up on our return when we are hungry. Now there is where we miss it, as every hunter will tell you by similar experience.

We started out for "chickens," and were well supplied with everything required, and perfect weather to make us happy. We arose at 3 A. M. and with a good team were at the grounds at a little after five, when we roused a farmer to care for the team and in another hour were in the field at the opening of the season. Starting out with a good batch of shells, lunch, etc., we made a circuit around a small lake and secured three birds before a mile had been traveled, and felt jubilant, as birds are not numerous and there are more hunters than chickens in our State.

The tract was a wet section and in no point like the Western haunts of the prairie hen, but in Michigan the birds are not as much given to prairie preference, more often choosing the lower tracts, often where the ground is half covered with water, and frequently the birds are taken from isolated patches of scrub almost or quite surrounded by water, and in situations where a Westerner would never think of spending his time looking for game, unless he wanted snipe or possibly rabbits. The route lay for miles through a country where there were patches of tamaracks and occasional small ponds and sloughs, and the whole section was undoubtedly covered with water at an early day, but at this time the low situation was chosen by the hens in preference to higher quarters.

Occasionally we could hear reports in the distance, but in the whole day's outing we only met with three hunters and only one of them had met with any success, and he had but two birds. I think the whole matter of success lies in the dogs that are used, for in hunting chickens the main difficulty lies in locating the birds. In a day's trip a man may pass by a score of bunches or pairs and never know of their proximity if he has no dog, as the birds are so scarce and lie so close at times. Again, later in the season the birds may rise wild on the approach of a poorly broken dog, making it impossible to get within good chance distance. Our dogs, "Dan" and "Jim," were perfection, and without them the hunt would have been a failure, and permit me to say that many men who hunt do not give sufficient credit to their faithful followers, thinking that the success of the hunt depends mainly on the hunter. There was a time when a gunner could go out alone and secure all the birds that he could carry, but that time has forever passed away, owing to the lax protection that the pinnated grouse has received at the hands of man. Now, in order to secure game on the prairies the gunner needs must have a well-trained dog, and even with his assistance the chances for a good bag are slim in many cases.

We walked about in the glades and over the marsh grass, and through the scrub and bushes, for two hours or more, and found it pretty warm work. As we had eaten nothing since three in the morning we each took a bite and then decided to *cache* our grub and extras and get them on our return. So we hid the provender and some of the shells and

went on our way. Keeping about two hundred yards apart, we kept the dogs well in the lead and tramped over an amazing amount of territory in order to successfully cover all available ground, for we were bound to make a bag if such a thing were possible.

Dan made a point near a bunch of bushes and Hank and I hastened to encourage him, and after a little shuffling about for positions, up went four birds almost simultaneously, and we each secured a score. Dan still stood stanch, and my partner following, got up another right quarterer which he knocked in good style. Retrieving our birds, we were passing on when we saw Jim intent at the edge of a little clump of bushes; going in his direction we flushed three more birds in fine shape and ingloriously missed the lot, although we gave them two barrels each. There then occurred a short but explosive tirade by my companion which same I am confident he did not learn at Sunday school. We next tramped in the direction in which two of the birds had flown, and after an hour's work we secured one of the pair but could find no more. While at the edge of a small lake two snipe were jumped and I had the satisfaction of bowling them both over at a good range, which partially compensated me for our previous inexcusable misses. There is a grim pleasure in success with small game, even where larger prey has eluded us, and all of us can recall cases where we have had our hopes and vanity raised by good shots at small game after bigger game has escaped us. It takes but little to puff up a man in the field as well as in the ballroom or legislative halls.

About noon we began to get hungry and by two o'clock we were in a ravenous state. We wandered on and on until we did not know the way home. The marsh glades and clumps of trees and small lakes were like the everglades of Florida and all looked alike to us. The sun was obscured and we could not tell north from south. We had crossed several roads but that had been hours before and we were now in a section as lonesome and isolated as if a thousand miles from home. We were practically lost, and acknowledged it. The dogs seemed to lack spirit, probably from not being properly fed, and did not range as they should. Then Hank suddenly recalled that he had placed some dog biscuits in his coat pockets and which he had overlooked because of the game and shells that were left after he dropped the lunch.

Calling the dogs he broke up a biscuit, and we watched the faithful creatures grind up the patent composition. At this minute it occurred to me that, as "necessity is the mother of invention"—why should not we gobble some of this copyrighted product which the dogs seemed to enjoy? No sooner said than done, and I began to gingerly gnaw at the edges of one of the remaining biscuits, and Hank watched me, making remarks as I ground it up. Said he: "Do you taste any of Beefsteak John's leavin's in that stuff? What bench show do you go to next? You must be in the bulldog class by the way you chaw your rations. Better rub on a little mange-cure next, and take some condition powders." He kept this up for the next ten minutes, and then asked sensible questions; finally he took a nibble himself and then ate his rations like a little man, acknowledging that it wasn't half bad. In truth, we ate so much of the patent stuff that the dogs failed to get their share. We all felt refreshed and went on our way rejoicing, with renewed spirits. What did we care if we were lost, if we could only secure dog biscuit for lunch, and the chickens were plenty.

So we struggled on, and at last made port in a queer quarter of the country. We secured the services of a farmer and in an hour were on our way back. We found that we had wandered so far from our first point that we had to go about ten miles to get back by road. It took until nine at night to reach our own team, and it was after twelve when we reached home. The extra shells and lunch are in the hiding place still, and we expect to go after them "next time," whenever that period shall arrive. We bagged the lucky number of thirteen chickens, two rabbits, a ruffed grouse and some snipe, and considered ourselves well paid; besides which we had the experience of eating dog biscuit. We have never been hungry enough to repeat the repast, but we know that if we are hard put that we can place on the dog provender. It is good, because nutritious, and I want to recommend it to all of my friends who are short of rations on a hunt.

WESTERN FIELD.

The Sportsman's Magazine of the West.

OFFICIAL ORGAN

OLYMPIC ATHLETIC CLUB AND THE CALIFORNIA FISH AND GAME PROTECTIVE ASSOCIATIONS.

PUBLISHED MONTHLY BY

THE WESTERN FIELD CO., (Incorporated)
SAN FRANCISCO, CAL.

Offices; 4 Sutter Street, corner Sansome Street. Telephone, Main 1262.

Registered at the San Francisco Postoffice as Second-Class Matter.

FRANK H. MAYER, - - - - Managing Editor

Matter for publication should be addressed "WESTERN FIELD," 4 Sutter Street, San Francisco, Cal., and not to individuals connected with the magazine. All copy for new advertisements, changes or discontinuances, must be in hand not later than the 10th of the month preceding date of issue, in order to insure attention.

PERNICIOUS LEGISLATION.

THERE are two measures now under consideration by our national lawmakers which should have been killed before they were conceived, much less born, if such a happy thing were possible. One of them is Senate Bill No. 4166, sponsored by Mr. Dillingham of Vermont, and the other is Senate Bill No. 4319, introduced by Mr. Elkins of West Virginia.

The former measure would, if it became a law, operate to the rapid and complete annihilation of all the game in Alaska, as well as of the game and non-game migratory birds which presently breed in our far northern possessions. It would, in effect, simply result in an indiscriminate slaughter of incalculably valuable animals; it would actually place a premium on such lethal extravagances, for under its provisions any and all of the numerous trading companies would gladly hire unprincipled market and head butchers to secure meat and hides and heads for them, they being very eager to pay the petty and insignificant license fees which the bill exacts from such unscrupulous individuals, in view of the enormous profits accruing to them from the export traffic authorized by this particularly vicious bill.

The fact that such licenses would be paid directly into the national coffers, through the mediumship of intervening clerks of the United States Federal District Courts, would make our national government a veritable sucker-partner to a felonious combination and conspiracy to rob the people of their most valuable natural asset, the Federal government taking a ludicrously small modicum of the pillage in payment for its weak complicity. The whole bill is rotten to the core. Its very title is a lie and its author, instigators and would be supporters ought to be crushed into oblivion by the sheer weight of public contumely.

Its very provisions are an insult to the intelligence of the honorable committee to which it has been referred, and we confidently look to its unceremonious rejection on that score alone.

The second bill in question is one almost as absurd in its provisions as is the Dillingham abomination. While purporting to have for its purpose the proper and safe handling of high explosives, it embodies certain features which will, from reason of their own incongruity, result in the certain defeat of the whole measure. Briefly stated, it subjects to all the onerous restrictions attending the shipment of dangerous explosive compounds, every form of shotgun, pistol and rifle ammunition. Should it be possible for such an anomoly to become a law it would work an immense amount of injury to all the sporting goods dealers, as well as to the sporting public at large, for it prohibits the shipment of any ammunition except under the drastic restrictions governing the transmission of high explosives.

Under such restrictions the retail traffic in sporting weapons and ammunition would die a violently sudden death. A dealer could not, for instance, fill a small order for fixed ammunition which had to be sent any distance, however short, by public carrier; for he would have to have his shipment expensively boxed, labeled and inspected by a regularly appointed government official, and then have the little parcel shipped in a specially equipped and statutesquely appointed regulation car built for that purpose!

In other words, it would be impossible to ship, as at present, by express, even a single 25 box of cartridges, despite the well-known fact that smokeless powder, or cartridges

loaded with it, never explode by accident while in transportation transit, and that they are not as much of a menace in burning buildings as is thousands of other articles of commonly stored merchandise. The express companies to-day not only offer no objections to the handling of such smokeless ammunition, either fixed or otherwise, but actually solicit its transportation eagerly, knowing perfectly well of its harmless character under usual transportation conditions.

It follows that if the dealer can not conveniently supply ammunition for weapons, the demand for such weapons will also fall off for reasons apparent to all. It is to be hoped that this bill, in company with the Dilingham foolishness, will be promptly and drastically squelched. We have faith in the good common sense of our national representatives and every confidence in their possession of ordinary foresight and normal intelligence.

AS TO AUTOMATIC GUNS.

NO MATTER what may be his personal prejudice in the premises, every sportsman of normal intelligence, will concede that the so-called "automatic" types of firearms are among the ordained weapons of the future. The tide of invention and mechanical progression can not be restrained by any sentimental vaporings and it does not require any peculiar gift of prophecy to forecast the fact that in less than one short decade automatic forms of the shooter's paraphernalia will receive as wide an adoption as has been accorded the excellent hammerless and ejecting mechanisms of the present day.

For it is an indubitable fact that hammerless and automatically acting firearm mechanisms are a great improvement over the former types, and whatever is an improvement will be quickly adopted by the masses who have been educated up to having great expectations along this line. Such improved systems are handier, deadlier—yea, even cheaper than the old kinds and will certainly replace all types inferior in these respects.

It is our well-established opinion that all legislative attempts to restrain the adoption and use of these improved mechanisms will fail by reason of their evident non-constitutionality and unprogressiveness. A law prohibiting such employment of automatic or other repeating form of gun—when such gun is used strictly in conformity with the "limit" and "season" provisions of the game laws—is unquestionably class legislation of the most pronounced type and will be so considered by modern courts. An opinion to this effect has already been handed down by one of our most eminent and capable California jurists and his decision was a wise and sensible one. We question whether any tribunal will reverse his decision, for it is founded purely on equity and common sense.

The only class that could logically lodge any protest against the use of such weapons would be the friends of game protection. It might be argued by them that the vastly increased lethal and destructive qualities of the arms in question would insure a greater number of animals being killed. That is possibly so, but even conceding this for argument's sake the remedy is plain and easy to find: Make the bag limit, both daily and seasonal, proportionately smaller.

In reality it is not a question of guns at all, but of the sportsmen who employ them. No one will deny that the experienced game-hog and market-hunter can and does kill more game with an old-style weapon than can the novice, even if the latter have the advantage of all modern improvements on his side. And what difference, may we ask, has the mechanical difference in killing of animals, up to a certain proscribed number, got to do with the perpetuation of the supply? Is the effect not exactly the same whether they are killed by a pot-metal blunderbuss or a thousand dollar gold inlaid automatic repeater? If the presently defined "limit" is too easily attained by automatic gun shooters, lessen that limit. No real sportsman will exceed the bounds of decency, not to say legality, with any arm; and as for the game-hog, he can kill no more, legally, with his deadly "automatic" than he could with his obsolete muzzle-loader; for when he reaches the limit prescribed by law he must stop or incur the penalty.

We repeat again, it is not a question of guns but of lawful limitations to the number of animals that may be killed that will affect the game supply. Americans are progressive and they will have the latest and best improved paraphernalia in their use

that money can buy. The tirade against the new types has no foundation in fact. The pump and automatic have come to stay and we must make conditions to suit them. The way to do this is plain. Decrease the limit and if necessary shorten the season.

NOT THOROUGHLY POSTED.

IT IS A great pity that certain of our State editors do not thoroughly acquaint themselves with the facts in the cases which they seem constrained to dilate upon, more or less ludicrously, from time to time.

Touching upon the constitutionality of our present State game laws, one of these gentlemen was moved to say recently that our legislature "in undertaking to make it a crime to bring into the State during the close season fish or game from any other State, greatly exceeded its authority. Such a law seems to be a direct interference with interstate commerce, which by the Constitution of the United States is under the sole control of Congress." He evidently never read or heard of that excellent United States law commonly called the "Lacey Act," which expressly forbids the transportation, from one State or Territory to another, of any game animals wearing fur, fins or feathers, when such game has been either illegally killed, or exported from a State whose laws forbid such exportation. As practically all the States and Territories now forbid such exportation, our friend has another guess coming as to our State law's interference with Federal legislation.

AN OPEN LETTER TO SENATOR BARD.

HON. T. R. BARD, U. S. SENATE, WASHINGTON, D. C.—DEAR SIR: As a sincere exponent of the best interests of the people of the great West, and of the Pacific Coast and the State of California in particular, WESTERN FIELD most earnestly requests and urges that you use your great influence toward preventing the passage of Senate Bill No. 4166, which bill has been referred to the Committee on Territories, of which you are a prominent member.

The facts on which we base this request, speaking as we do in the name of all your constituents, are well established and thoroughly known and understood by all intelligent Americans. They are concisely and plainly set forth in the following resolutions adopted by the Board of Trade of Pasadena, and unanimously indorsed by other municipal bodies in this State, as well as by the citizens of California at large:

"WHEREAS, There was introduced in the Senate of the United States on February 8, 1904, a bill (No. 4166) 'To repeal "An act for the protection of game in Alaska, and for other purposes," approved June 7, 1902, and to protect deer, moose and caribou in Alaska,' and

"WHEREAS, If said bill becomes a law it not only leaves the big game at the mercy of the market hunter and head hunters, but removes *all* protection from birds, thus leaving the great breeding grounds of the waterfowl, where are hatched the ducks and geese which migrate to the United States, without any legal protection, and

"WHEREAS, All of the non-game birds which have for years been mercilessly slaughtered by plume hunters will also be left without any legal protection, and

"WHEREAS, The sentiment of all thinking people is in favor of more rigid and complete protection to wild animals and birds, and

"WHEREAS, Only a very limited class of people, governed by selfish personal interests, desire to have protection removed from wild birds and animals; therefore, be it

"*Resolved*, That the Pasadena Board of Trade, of the State of California, most emphatically but respectfully protests against the passage of Senate Bill No. 4166 as against the best interests of the great majority of the citizens of the United States."

We look to you, as the conscientious and able representative of Californians and their interests, to oppose most strenuously the adoption of this pernicious measure in committee, relying upon your clear perceptions and mature judgment for the full indorsement of our appeal. Confident in the belief that your interest will be favorably enlisted in our behalf, and thanking you in advance for the support that we are certain you will extend to us in the matter, we beg to subscribe ourselves,

In the name of California sportsmen,

Yours most sincerely,

WESTERN FIELD.

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THE CALIFORNIA GAME LAWS IN BRIEF

(Compiled by Charles A. Vogelsang, Chief Deputy, State Board of Fish Commissioners.)

OPEN AND CLOSE SEASONS IN CALIFORNIA, 1903-1904.

WHITE--Open Season. **BLACK--Close Season.**

BAG LIMIT

Quail, Grouse, Snipe, Curlew, Ibis, Plover, 25 in one day.
Doves, Ducks, - - - - - - - 50 in one day.
Rails, - - - - - - - - - 20 in one day.
Deer (male), - - - - - - - 3 in one season.

	January.	February	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
DEER,							Jul. 15					
DOVES,		Feb 15										
MOUNTAIN QUAIL, GROUSE, SAGE HEN,		Feb 15										
VALLEY QUAIL, DUCKS, IBIS, CURLEW, PLOVER, RAIL,		Feb 15								Oct 15		
TREE SQUIRRELS,												
TROUT,												
STEELHEAD TROUT,									Sep 10	Oct 16		
SALMON (Above tide-water close season extends to Nov. 15),									Sep 10	Oct 16		
LOBSTER or CRAWFISH (Not less than 9½ in. long),								Aug 15				
BLACK BASS,												
SHRIMP,												
CRAB (No Crab taken less than 6 in across the back).												

N. B.--In some counties the OPEN seasons are shorter
Write to County Clerk or District Attorney.

Fine for violation Game Laws, $25 to $500, and imprisonment.
Fine for violation Fish Laws, $20 to $500, and imprisonment.
Smallest fine for using explosives to take any fish, $250, and imprisonment.

WHAT IS ALWAYS UNLAWFUL

TO BUY, SELL, OFFER FOR SALE, BARTER OR TRADE, AT ANY TIME, ANY QUAIL, PHEASANT, GROUSE, SAGE HEN, IBIS, PLOVER, OR ANY DEER MEAT OR DEER SKINS.

To have in possession doe or fawn skins.
To take or kill, at any time, does, fawns, elk or antelope.
To take or kill pheasants, or Bob-White quail.
To run deer with dogs during the close season.
To shoot half-hour before sunrise, or half-hour after sunset.
To trap game of any kind without having first procured *written* authority from the Board of Fish Commissioners.
To take or destroy nests or eggs of game birds.
To ship game in concealed packages, or *without* your name and address.
To *buy* or *sell trout* less than *one-half pound* in weight.
To take, at any time, sturgeon, or female crabs.
To take abalones less than fifteen inches in circumference.
To take trout or black bass, except with hook and line.
To take salmon, shad or striped bass with a net less than seven and one-half inch mesh.
To use a set net.
To take fish, in any manner, within fifty feet of a fishway.
To take, buy, or sell striped bass less than three pounds in weight.
To shoot meadow larks.
To shoot on enclosed land without permission.

COUNTY ORDINANCES.

BY LEGISLATIVE enactment the various Boards of Supervisors have, in their respective counties, jurisdiction and power to provide, by ordinances not in conflict with the general laws of the State, for the protection of fish and game, and may shorten (but not extend) the open season for the taking and killing of fish and game within the dates fixed by the general State law.

The ordinances as published below are, so far as we can ascertain, correct; changes are, however, liable to occur from time to time, necessitated by new conditions, and we will make such corrections when they eventuate. If in any doubt, please address this office, and information will be gladly given. Where counties are not enumerated in the following list, it is to be understood that no departure from the general State law has been adopted.

El Dorado.—Male deer, September 1 to November 1; tree squirrel, August 1 to October 1; trout in Lake Tahoe and Loon Lake, June 1 to November 1.

Fresno.—Doves, August 15 to February 1; quail, November 1 to February 1; male deer, September 1 to November 1.

Humboldt.—Trout, May 1 to November 1; striped bass, closed until January 1, 1905; barnacle or black brant, October 1 to March 1; Wilson or jack snipe, September 1 to February 15; English or Mongolian pheasant and wild turkey, closed until January 1, 1906; ducks, limit of 25 per day; black sea brant, limit of 8 per day; miscellaneous bag of game birds, not to exceed 40 in number per day's shoot.

Kern.—No game to be shipped out of county.

Kings.—Doves, September 1 to February 15; quail, November 1 to February 15; deer, September 1 to November 1; black bass closed for two years; limit on ducks, 25 per day.

Lake.—Male deer, July 15 to September 15.

Los Angeles.—Doves, August 1 to September 1; male deer, July 15 to September 15; trout, May 1 to August 1.

Los Angeles—Doves, July 31 to October 1; male deer, July 15 to September 15. Gulls, terns, meadow larks, robins, flickers, brewers blackbird, road runners, orioles, mocking birds, the water ousel, the barn owl and other species of beneficial birds are protected at all times in Los Angeles County. The putting out of poison mixed with or dissolved in water for the purpose of poisoning birds or animals of any sort is forbidden.

Madera—Doves, August 15 to February 1; valley quail, November 1 to February 1; male deer, September 1 to November 1; ducks, limit 25 per day; duck selling prohibited; trout limit 10 pounds per day, size limit, 6 inches; black bass, closed for two years.

Marin.—Male deer, July 15 to September 15; doves, August 1 to February 15; quail, October 15 to January 15; tree squirrels, July 1 to February 1. Shooting on county roads prohibited. Killing of larks and other song birds prohibited.

Mendocino.—Male deer, July 15 to October 1.

Merced.—Doves, August 15 to February 15.

Monterey.—Deer, July 15 to October 1. No hounds. Sea gulls and blue cranes prohibited.

Napa.—Deer, July 15 to September 15.

Orange.—Doves, August 1 to February 15.

Riverside.—Male deer, August 1 to September 15; trout, May 1 to July 1.

San Benito.—Male deer, August 1 to October 1.

San Bernardino.—Trout, June 1 to November 1; tree squirrels, limit 5 in one day; doves, August 1 to October 1; wild duck, trout or dove selling prohibited.

San Mateo.—Cottontail and bush rabbit, July 1 to February 1; rail, October 15 to November 16. Rail hunting with boats one hour before or after high tide prohibited. Male deer, August 1 to October 1; trout, limit 100 per day; tree or pine squirrels, prohibited. Song birds protected perpetually.

Santa Barbara.—Male deer, July 15 to September 15.

Santa Clara.—Male deer, July 15 to October 1.

Santa Cruz.—Male deer, August 1 to October 1. All wild birds (other than those recognized as game birds in general law), *except* hawks, owls, bluejays, shrikes, English sparrows and house-finches, are perpetually protected, as are likewise all species of tree squirrels. Black bass cannot be caught before January 1, 1907. Trout limit in one day, 100.

Siskiyou.—Deer, August 15 to October 15.

Sonoma.—Male deer, July 15 to September 1.

Trinity—Male deer, September 15 to October 30.

Tulare.—Trout limit, 10 pounds per day, 6-inch fish; black bass, closed for two years; road-runner killing prohibited.

Tuolumne.—Mountain quail, south of ranges 13, 14, 15 and 16 east, township 3 north, and west of townships 1 and 2, north, and township 1 south range 7 east, October 15 to February 15.

Ventura.—Trout, May 1 to November 1; male deer, August 15 to October 1.

Yolo.—Doves, August 1 to February 1; quail, November 1 to January 1; deer, July 15 to September 15.

Close Seasons for Game in the United States and Canada.

(Date of close season and the first date of open season are given; to find open season, reverse dates.)

	State.	Deer.	Elk.	Moose, Caribou.	Antelope.	Squirrel.[1]	Rabbit.	Quail.	Grouse.	Prairie Chicken.	Wild Turkey.
		MAMMALS.						**BIRDS.**			
NORTHERN.	Maine	Dec. 15-Oct. 1[1]		Dec. 1-Oct. 15[16]			Apr. 1-Sept. 1	At all times	Dec. 1-Sept. 16		
	New Hampshire	At all times[4]	At all times	At all times		Jan. 1-Sept. 15	Apr. 1-Oct. 1	Dec. 15-Sept. 15	Dec. 15-Sept. 15		
	Vermont	Nov. 1-Oct. 23		At all times			May 1-Sept. 1	Jan. 1-Sept. 1	Jan. 1-Sept. 1		
	Massachusetts	To Nov. 1, 1903				Mar. 1-Oct. 1	Mar. 1-Oct. 1	Dec. 1-Oct. 1[1]	Dec. 1-Oct. 1		
	Rhode Island	To Feb. 1, 1905				Jan. 1-Oct. 15	Jan. 1-Oct. 15	Dec. 16-Oct. 15	Dec. 16-Oct. 16		
	Connecticut	To June 1, 1911				Dec. 1-Oct. 1	Jan. 1-Oct. 1	Dec. 1-Oct. 1	Dec. 1-Oct. 1		
	New York[1]	Nov. 16-Sept. 1	At all times	At all times	At all times	Dec. 1-Sept. 16	Dec. 16-Sept. 16	Dec. 1-Nov. 1	Dec. 1-Sept. 16		
	Long Island	Exc'pt 4 days Nov.				Jan. 1-Nov. 1	Jan. 1-Nov. 1	Jan. 1-Nov. 1	Jan. 1-Nov. 1		
	New Jersey	To April 14, 1905				Jan. 1-Nov. 10	Jan. 1-Nov. 10	Jan. 1-Nov. 10	Jan. 1-Nov. 10	Jan. 1-Nov. 10	Jan. 1-Nov. 10
	Pennsylvania	Dec. 1-Nov. 1	Dec. 1-Nov. 1			Dec. 16-Oct. 15	Dec. 16-Nov. 1	Dec. 16-Oct. 10	Dec. 16-Oct. 15	Dec. 16-Oct. 15	Dec. 16-Oct. 15
	Delaware						Jan. 1-Nov. 15	Jan. 1-Nov. 15	Jan. 1-Nov. 15		
	Maryland[1]	Local laws				Dec. 1-Sept. 1	Dec. 25-Nov. 1	Dec. 25-Nov. 1	Dec. 25-Nov. 1		Dec. 25-Nov. 1
	Dist. Columbia	Jan. 1-Sept. 1[5]				Feb. 1-Nov. 1	Feb. 1-Nov. 1	Mar. 15-Nov. 1	Dec. 26-Nov. 1	Mar. 15-Sept. 1	Dec. 26-Nov. 1
	Virginia	Jan. 1-Oct. 1						Feb. 1-Nov. 1[20]	Feb. 1-Nov. 1[20]		Feb. 1-Nov. 1[20]
	West Virginia	Dec. 15-Oct. 15				Jan. 1-Sept. 15	Jan. 1-Sept. 15	Dec. 20-Nov. 1	Dec. 15-Oct. 15	Dec. 15-Oct. 15	Dec. 15-Oct. 15
	Kentucky	Mar. 1-Sept. 1				Feb. 1-June 15		Jan. 1-Nov. 15	Jan. 1-Nov. 16		Feb. 1-Sept. 1
	Ohio	Dec. 16-Nov. 10				Sept. 2-Aug. 1	Dec. 2-Nov. 10	Dec. 2-Nov. 10	To Nov. 10, 1904	To Nov. 10, 1904	Dec. 2-Nov. 10
	Michigan	Dec. 1-Nov. 8[1]	To 1911	To 1911		Dec. 1-Oct. 15		Dec. 1-Oct. 20[19]	Dec. 1-Oct. 20[19]	To 1910	To 1910
	Indiana	At all times				Jan. 1-Aug. 1[10]		Jan. 1-Nov. 10	Jan. 1-Nov. 10	Jan. 1-Nov. 10	At all times
	Illinois	To 1913				Jan. 1-July 1		Dec. 20-Nov. 10	To 1907	To 1907	To 1908
	Wisconsin	Dec. 1-Nov. 11[1]				May 1-Sept. 1	May 1-Sept. 1	To Sept. 1, 1905	Dec. 1-Sept. 1	Dec. 1-Sept. 1[1]	
	Minnesota	Dec. 1-Nov. 11	At all times	Dec. 1-Nov. 11				Dec. 15-Oct. 15	Dec. 15-Oct. 15	Nov. 1-Sept. 1	
	Iowa	At all times	At all times			Jan. 1-Sept. 1		Jan. 1-Nov. 1	Jan. 1-Nov. 1	Dec. 1-Sept. 1	Jan. 1-Nov. 1
	Missouri	Jan. 1-Oct. 1						Jan. 1-Nov. 1	Jan. 1-Nov. 1	Jan. 1-Nov. 1	Jan. 1-Nov. 1
	Kansas				To Mar. 13, 1909			Jan. 1-Nov. 15[16]	Oct. 1-Aug. 15	Oct. 1-Aug. 15[16]	
	Nebraska	Nov. 16-Aug. 15	At all times		Nov. 16-Aug. 15			Dec. 1-Nov. 1	Dec. 1-Oct. 1	Dec. 1-Oct. 1	At all times
	South Dakota	Dec. 15-Nov. 15	Dec. 15-Nov. 15		To Jan. 1, 1911			Jan. 1-Sept. 1	Jan. 1-Sept. 1	Jan. 1-Sept. 1	
	North Dakota	Dec. 1-Nov. 10	At all times	At all times	To Jan. 1, 1911			To Sept. 1, 1905	Oct. 15-Sept. 1	Oct. 15-Sept. 1	
	Montana	Dec. 1-Sept. 1	Nov. 1-Sept. 1	At all times				At all times	Dec. 1-Aug. 15	Dec. 1-Aug. 15	
	Wyoming	Nov. 15-Sept. 15	Nov. 15-Sept. 15	To Sept. 15, 1912[18]	Nov. 15-Sept. 15			At all times	Oct. 15-July 10	Dec. 1-Sept. 1	
	Colorado	Oct. 1-Sept. 15	To 1907		To 1907			To Oct. 1, 1920[21]	Oct. 21-Sept. 1	Oct. 21-Sept. 1	To 1907
SOUTHERN.	North Carolina[1]	Jan. 1-Oct. 1				Local laws		Mar. 15-Nov. 1			Mar. 15-Nov. 1
	South Carolina	Feb. 1-Sept. 1[1]						Apr. 1-Nov. 1	Apr. 1-Nov. 1		Apr. 1-Nov. 1
	Georgia[6]	Jan. 1-Sept. 1[1]						Mar. 15-Nov. 1	Mar. 15-Nov. 1		Mar. 15-Nov. 1
	Florida	Feb. 1-Nov. 1						Mar. 1-Nov. 1			Mar. 1-Nov. 1
	Alabama[7]	Jan. 1-Sept. 1				Feb. 3-July 1		Mar. 2-Nov. 15	Mar. 2-Nov. 15	Mar. 2-Nov. 15	Mar. 2-Nov. 15
	Mississippi	Mar. 1-Sept. 15						May 1-Oct. 1			May 1-Oct. 1
	Tennessee	Dec. 15-Oct. 1				Mar. 1-June 1		Mar. 1-Nov. 1	Mar. 1-Nov. 1	Mar. 1-Nov. 1	Mar. 1-Nov. 1
	Arkansas	Feb. 1-Sept. 1[1]						Feb. 15-Nov. 1[1]		Dec. 1-Oct. 31	May 1-Sept. 1
	Louisiana	Apr. 1-Nov. 1					Apr. 1-Nov. 1	Apr. 1-Nov. 1	Mar. 1-Nov. 1	Mar. 1-Nov. 1	Apr. 1-Nov. 1
	Texas	Jan. 1-Nov. 1			To July 1, 1908			Feb. 1-Nov. 1		Feb. 1-Nov. 1	Feb. 1-Nov. 1
	Oklahoma	At all times			At all times			Feb. 1-Oct. 15	At all times	Jan. 1-Sept. 1	Jan. 1-Sept. 1
	New Mexico	Jan. 1-Nov. 1	To Mar. 7, 1905		To Mar. 7, 1905			Mar. 1-Oct. 1	Jan. 1-Oct. 1	Jan. 1-Oct. 1	Jan. 1-Oct. 1
	Arizona	Nov. 1-Sept. 15	At all times		To Jan. 1, 1906			Mar. 1-Oct. 15	Mar. 1-Oct. 15		Nov. 1-Sept. 15
PACIFIC.	California[1]	Nov. 1-July 15	At all times		At all times	Feb. 1-Aug. 1		Feb. 15-Oct. 15[9]	Feb. 15-Sept. 1		
	Nevada	Nov. 15-Sept. 15	At all times	At all times[19]	Nov. 15-Sept. 15			Mar. 1-Sept. 15	Mar. 1-Sept. 15	Mar. 1-Sept. 15	
	Utah	Nov. 1-Sept. 1	At all times		At all times			At all times[4]	Dec. 1-Aug. 15	Dec. 1-Aug. 15	
	Idaho	Jan. 1-Sept. 1	Jan. 1-Sept. 1	At all times	Jan. 1-Sept. 1			Dec. 1-Nov. 1	Dec. 1-Aug. 15	Dec. 1-Aug. 15	
	Washington	Dec. 15-Sept. 15	Nov. 1-Sept. 15	Nov. 1-Sept. 15	Nov. 1-Sept. 15			Jan. 1-Oct. 1[14]	Jan. 1-Sept. 1	Jan. 1-Sept. 1	
	Oregon[1]	Nov. 1-July 15[1]	To Sept. 15, 1904	Nov. 1-July 15[10]	Nov. 1-July 15[1]	Jan. 1-Oct. 1		Dec. 1-Oct. 1	Dec. 1-Oct. 1	Dec. 1-Oct. 1	To Oct. 1, 1905
	Alaska	Dec. 10-Sept. 1		Nov. 1-Sept. 1[3]					Dec. 10-Sept. 1		
	Hawaii							Mar. 1-Sept. 16			
CANADA.	British Columbia	Dec. 15-Sept. 1	Jan. 1-Sept. 1	Jan. 1-Sept. 1			Jan. 1-Sept. 1	At all times	Jan. 1-Sept. 1	Jan. 1-Sept. 1	
	N.W. Territories[11]	Dec. 15-Nov. 1	Dec. 15-Nov. 1	Dec. 15-Nov. 1	Dec. 15-Nov. 1				Dec. 15-Sept. 15	Dec. 15-Sept. 15	
	Manitoba	Dec. 15-Nov. 15	Dec. 15-Nov. 15	Dec. 15-Nov. 15	Dec. 15-Nov. 15			Jan. 1-Aug. 1	Nov. 15-Sept. 15	Nov. 15-Sept. 15	
	Ontario	Nov. 16-Nov. 1	At all times	Nov. 16-Oct. 16[12]		Dec. 16-Sept. 15	Dec. 16-Sept. 15	Dec. 1-Nov. 1	Dec. 16-Sept. 15	To Sept. 15, 1905	Dec. 1-Nov. 1
	Quebec	Jan. 1-Sept. 1[3]		Jan. 1-Sept. 1[3]			Feb. 1-Nov. 1[1]		Dec. 15-Sept. 1[3]		
	New Brunswick	Dec. 1-Sept. 15		Dec. 1-Sept. 15[1]					To May 9, 1905		
	Nova Scotia	To Oct. 1, 1905		Jan. 1-Sept. 15[13]				Feb. 1-Oct. 15	Dec. 1-Oct. 1[1]		
	Newfoundland		To Jan. 1, 1919	Feb. 1-Oct. 21[20]			Mar. 1-Sept. 16		Jan. 13-Sept. 16		

	State.	Dove.	Introduced Pheasant.	Plover.	Snipe.	Woodcock.	Rail.	Duck.	Goose, Swan.	Protected in a few States only.	
		BIRDS.									
NORTHERN.	Maine	At all times	To Mar. 22, 1911	May 1-Aug. 1	May 1-Aug. 1	Dec. 1-Sept. 15		Dec. 1-Sept. 1[2]		**Ptarmigan.**	
	New Hampshire	At all times	To Sept. 15, 1905	Feb. 1-Aug. 1[1]	Dec. 15-Sept. 15[1]	Dec. 15-Sept. 15	Feb. 1-Aug. 1	Feb. 1-Aug. 1[2]			
	Vermont	At all times	Nov. 20-Oct. 1	Jan. 1-Sept. 1[1]	Jan. 1-Sept. 1	Jan. 1-Sept. 1		Jan. 1-Sept. 1	Jan. 1-Sept. 1[18]		
	Massachusetts	At all times	To Feb. 13, 1905	Mar. 1-July 15	Mar. 1-July 15	Dec. 1-Oct. 1	Mar. 1-July 15	Mar. 1-Sept. 1[2]		Colorado	At all times
	Rhode Island	At all times	To Oct. 1, 1905			Dec. 16-Oct. 15		Apr. 1-Aug. 15[1]		Washington	Jan. 1-Sept. 1[2]
	Connecticut	At all times	To June 1, 1906	Apr. 1-Sept. 1	May 1-Aug. 1	Dec. 1-Oct. 1	Apr. 1-Sept. 1[1]	May 1-Sept. 1	May 1-Sept. 1	Alaska	Dec. 16-Sept. 1
	New York[1]	At all times	To 1905	May 1-Sept. 1	May 1-Sept. 1	Dec. 1-Sept. 16	May 1-Sept. 1	Jan. 1-Sept. 16	Jan. 1-Sept. 16	Quebec	Feb. 1-Nov. 1
	Long Island	At all times	Jan. 1-Nov. 1[4]	Jan. 1-July 1	Jan. 1-July 1	Jan. 1-Aug. 1	Jan. 1-July 1	Jan. 1-Oct. 1	Jan. 1-Oct. 1	Nova Scotia	At all times
	New Jersey	At all times	Jan. 1-Nov. 10	Jan. 1-July 15[3]	Jan. 1-Sept. 1	Jan. 1-Oct. 1[2]	Jan. 1-Sept. 1	May 1-Oct. 1	May 1-Oct. 1	Newfoundland	Jan. 12-Sept. 18
	Pennsylvania		Dec. 16-Oct. 15	Jan. 1-July 15[5]		Dec. 16-Oct. 15[2]	Dec. 1-Sept. 1	May 1-Sept. 1	May 1-Sept. 1		
	Delaware	At all times					Feb. 1-Sept. 1	Apr. 15-Oct. 1[4]	Apr. 15-Oct. 1		
	Maryland[1]	Dec. 25-Aug. 15	Dec. 25-Nov. 1	May 1-Aug. 15	May 1-Aug. 15	Dec. 25-Nov. 1[2]	Nov. 1-Sept. 1	Apr. 10-Nov. 1	Apr. 10-Nov. 1	**Sage Hen.**	
	Dist. Columbia	At all times		Apr. 1-Sept. 1	Apr. 1-Sept. 1	Jan. 1-July 1	Feb. 1-Sept. 1	Apr. 1-Sept. 1	Apr. 1-Sept. 1[18]		
	Virginia	At all times	Local laws	Jan. 1-July 20	Jan. 1-July 20	Feb. 1-Nov. 1[20]	Jan. 1-July 20[24]	Apr. 1-Oct. 15	Apr. 1-Oct. 15		
	West Virginia	At all times			July 1-Mar. 1	Nov. 2-July 15		Apr. 1-Oct. 1	Apr. 1-Oct. 1[18]		
	Kentucky	Feb. 1-Aug. 1				Feb. 1-June 20		Apr. 1-Aug. 15	Apr. 1-Aug. 16[4]	Nebraska	Dec. 1-Oct. 1
	Ohio	At all times	To Nov. 10, 1904	Dec. 2-Nov. 10[11]	Dec. 2-Nov. 10[11]	Sept. 2-Aug. 1	Dec. 2-Nov. 10[11]	Dec. 16-Sept. 1[4]	Dec. 16-Sept. 1[4]	Montana	Dec. 15-Aug. 1
	Michigan	At all times	To 1910	Dec. 1-Oct. 1	Dec. 1-Oct. 1[14]	Dec. 1-Oct. 20[19]		Dec. 1-Oct. 1[19]	Dec. 1-Oct. 1[19]	Wyoming	Oct. 15-July 15
	Indiana	At all times	At all times			Jan. 1-Nov. 10[19]		Apr. 15-Sept. 1[18]	Apr. 15-Sept. 1[18]	Colorado	Oct. 21-Sept. 1
	Illinois	Dec. 1-Aug. 1	To 1908	May 1-Sept. 1	May 1-Sept. 1	Dec. 1-Aug. 1		Apr. 15-Sept. 1	Apr. 15-Sept. 1	California	Feb. 16-Sept. 1
	Wisconsin	At all times	To Sept. 1, 1905	Dec. 1-Sept. 1	Dec. 1-Sept. 1	Dec. 1-Sept. 1		Jan. 1-Sept. 1[18]	May 1-Sept. 1[18]	Nevada	Feb. 16-July 15
	Minnesota	Nov. 1-Sept. 1	At all times	Nov. 2-Sept. 1[2]	Nov. 1-Sept. 1	Nov. 1-Sept. 1		Dec. 1-Sept. 1	Dec. 1-Sept. 1	Utah	Dec. 1-Aug. 15
	Iowa	At all times		Apr. 15-Sept. 1	Apr. 15-Sept. 1	Jan. 1-July 10	Apr. 15-Sept. 1	Apr. 15-Sept. 1	Apr. 15-Sept. 1[18]	Idaho	Dec. 1-July 15
	Missouri	Jan. 1-Aug. 1	Jan. 1-Nov. 1	Jan. 1-Aug. 1		Jan. 1-Aug. 1		Apr. 1-Oct. 1		Washington	Jan. 1-Sept. 1[4]
	Kansas	Sept. 15-Aug. 1	To Feb. 28, 1907	Sept. 15-July 15				Apr. 25-Sept. 1	Apr. 25-Sept. 1[18]		
	Nebraska	Oct. 31-Apr. 15	At all times	Oct. 31-Apr. 15	Apr. 16-Sept. 1			Apr. 16-Sept. 1	Apr. 16-Sept. 1		
	South Dakota			May 15-Sept. 1		Jan. 1-Sept. 1		May 1-Sept. 1	May 1-Sept. 1[18]	**Ruffed Grouse.**	
	North Dakota		To Sept. 1, 1905			Oct. 15-Sept. 1		May 1-Sept. 1	May 1-Sept. 1[18]		
	Montana	At all times	At all times					Jan. 1-Sept. 1	Jan. 1-Sept. 1		
	Wyoming	At all times	To Sept. 1, 1906	May 1-Sept. 1	May 1-Sept. 1		May 1-Sept. 1	May 1-Sept. 1	May 1-Sept. 1[18]		
	Colorado	Sept. 1-Aug. 1	At all times		Apr. 16-Sept. 10[8]			Apr. 16-Sept. 10[8]	Apr. 18-Sept. 10[8]		
SOUTHERN.	North Carolina[1]	Mar. 15-Nov. 1			Local laws	Local laws	Local laws	Local laws	Local laws	New Jersey	Jan. 1-Sept. 1
	South Carolina	Mar. 1-Aug. 1	To Dec. 22, 1903			Apr. 1-Nov. 1				Pennsylvania	Dec. 1-Sept. 1
	Georgia[6]	Mar. 15-Aug. 15	To Nov. 30, 1905					Feb. 1-Sept. 1[2]		Delaware	Feb. 1-Aug. 25
	Florida							Apr. 1-Oct. 15		Maryland	Nov. 1-Sept. 1
	Alabama	Mar. 1-Aug. 1	To Feb. 9, 1901			Mar. 5-Nov. 15				Dist. Columbia	Feb. 1-Sept. 1
	Mississippi	Mar. 1-Sept. 15								**Curlew.**	
	Tennessee	Mar. 1-Aug. 1	Jan. 1-Dec. 1	Apr. 15-Oct. 1	Apr. 15-Oct. 1	Apr. 15-Oct. 1	Apr. 15-Oct. 1	Apr. 15-Oct. 1[18]	Apr. 15-Oct. 1		
	Arkansas	At all times									
	Louisiana	Mar. 1-July 1		Oct. 1-Aug. 1[3]				Apr. 1-Sept. 1[3]		New Jersey	Jan. 1-July 15
	Texas	Feb. 1-Sept. 1	To July 1, 1908							New York	May 1-Sept. 1[3]
	Oklahoma	Jan. 1-Aug. 1	To Jan. 1, 1901	Jan. 1-Aug. 1						Virginia	Jan. 1-July 20
	New Mexico		To Mar. 11, 1906							South Dakota	May 15-Sept. 1
	Arizona		Mar. 1-Oct. 15		Mar. 1-Oct. 15		Mar. 1-Oct. 15			Nebraska	At all times
PACIFIC.	California[1]	Feb. 15-July 1	At all times	Feb. 15-Oct. 15			Feb. 15-Oct. 15	Feb. 15-Oct. 15		Wyoming	May 1-Sept. 1
	Nevada	Nov. 2-July 15	To Sept. 1, 1906	Mar. 1-Sept. 15	Mar. 1-Sept. 15	Mar. 1-Sept. 10		Mar. 1-Sept. 15	Mar. 16-Sept. 15[1]	Colorado	Apr. 16-Sept. 10[8]
	Utah	Dec. 1-Aug. 15	At all times		Mar. 15-Feb. 15[16]			Mar. 15-Feb. 15[16]	Mar. 15-Feb. 15[16]	Tennessee	Apr. 15-Oct. 1
	Idaho	July 15-Feb. 15	To Mar. 11, 1907	July 15-Feb. 15	July 15-Feb. 15			Feb. 15-Sept. 15	Feb. 15-Sept. 15	California	Feb. 15-Oct. 15
	Washington	At all times	To Oct. 15, 1906[1]	Mar. 1-Aug. 15	Mar. 1-Sept. 1		Mar. 1-Aug. 15	Mar. 1-Sept. 1	Mar. 1-Sept. 1	Nevada	Mar. 1-Sept. 15
	Oregon	At all times	To Oct. 1, 1905[1]	Jan. 1-Aug. 1[3]		To Oct. 1, 1905	Jan. 1-Aug. 1	Mar. 1-Sept. 1[3]	Mar. 1-Sept. 1[3]	Hawaii	May 1-Sept. 10
	Alaska	At all times		Dec. 16-Sept. 1	Dec. 16-Sept. 1			Dec. 10-Sept. 1	Dec. 10-Sept. 1	Quebec	Feb. 1-Sept. 1
	Hawaii	Feb. 1-July 1	To 1907	May 1-Sept. 16[3]	May 1-Sept. 10			Feb. 1-Sept. 16[3]	Feb. 1-Sept. 10	Newfoundland	Jan. 12-Aug. 21
CANADA.	British Columbia		At all times	Mar. 1-Sept. 1				Mar. 1-Sept. 1		**Crane.**	
	N.W. Territories[11]				May 3-Aug. 23			May 3-Aug. 23			
	Manitoba	At all times		Jan. 1-Aug. 1[3]	Jan. 1-Aug. 1	Jan. 1-Aug. 1		Jan. 1-Sept. 1		Nebraska	Apr. 18-Sept. 1
	Ontario		To Sept. 15, 1905	Dec. 16-Sept. 15	Dec. 16-Sept. 15	Dec. 16-Sept. 15	Dec. 16-Sept. 15	Dec. 16-Sept. 1	May 1-Sept. 15	South Dakota	May 1-Sept. 1
	Quebec			Feb. 1-Sept. 1	Feb. 1-Sept. 1	Feb. 1-Sept. 1		Mar. 1-Sept. 1[3]		North Dakota	May 1-Sept. 1
	New Brunswick		At all times		Dec. 2-Sept. 1	Dec. 2-Sept. 1		Dec. 2-Sept. 1[3]	Dec. 2-Sept. 1[18]	Colorado	Apr. 16-Sept. 10[8]
	Nova Scotia		At all times		Mar. 1-Sept. 1[3]	Mar. 1-Sept. 1[3]		Mar. 1-Sept. 1[3]		Nevada	Mar. 1-Sept. 15
	Newfoundland			Jan. 12-Aug. 21	Jan. 13-Aug. 21			Jan. 13-Aug. 21	Jan. 12-Aug. 21[18]	Washington	Mar. 1-Sept. 1

[1] Certain local exceptions. Certain species. [2] Except month of July. [3] Except Mar. 15-Apr. 31. [4] Except month of April. [5] Sale. [6] Except month of March. [7] Upland plover only. [8] Altitudes above 7,000 feet May 1 Sept. 15. [9] Except unorganized Territories, in which the seasons are as follows: Deer, elk, antelope, mountain sheep, mountain goat, Apr. 1-July 15 and Oct. 1-Dec. 1; musk ox, Mar. 20-Oct. 15; grouse, prairie chicken, Jan. 1-Sept. 1; duck, goose, swan, Jan. 15-Oct. 1. [10] Except July 10-Oct. 1. [11] Also Oct. 1-Nov. 10 unless permit be obtained. [12] Except certain species. [13] Mar. 3-Apr. 11. [14] Caribou protected in Maine to Oct. 15, 1905. [15] Moose only. [16] Goose only. [17] Swan: North Dakota to Sept. 1, 1905; Nevada, Wisconsin, and Wyoming at all times. [18] Caribou only. [19] Under the old law which still stands. [20] Except Aug. 1-Oct. 1; caribou only; moose protected to Jan. 1, 1917. [21] Except Mar. 10-Apr. 31. [22] Except south of Canadian Pacific R. R. between Mattawa and Port Arthur, Nov. 15-Nov. 1. [23] Except crested quail, to 1907. [24] Except swan. [25] Except July, Aug., and Sept. [26] Except Oct. 1-Dec. 15. [27] Except April 10-25. [28] Caribou protected in Nova Scotia to Oct. 1, 1905. [29] Swan only. [30] Except west of Blue Ridge, Jan. 1-Nov. 1. [31] In twenty counties to Mar. 18, 1906. [32] Except wood duck, Mar. 1-Aug. 1.

* Laws for 1905 not yet received.

HAVE MERCY ON THE BIRDS.

By Josephine Clifford McCrackin.

OD have mercy on the song-birds," I feel moved to say every time I pick up a paper in which a new recipe is given for their wholesale slaughter, whether by poisoned water hung temptingly among the branches of the trees, a display of appetizing cornmeal mixed with strychnine in open boxes nearer the ground, or by the systematic destruction of their nests and eggs.

Not only is the killing, but the methods of killing as well, so barbarous, so revoltingly treacherous that I protest in the name of humanity against the cold-blooded murder of these, our brightest fellow-creatures, the most helpful, cheerful friends of the farmer and orchardist.

How different the accounts read that come to us through journals from the Eastern States, where whole college-classes, whole schools have turned out on certain days to carry food to the birds in danger of starving through the long hard winter, pupils and teachers vieing with each other as to which should do most; clearing spaces in the deep snow on which to scatter food, and climbing trees to hang pieces of meat and suet among the branches where no prowling cat could get them.

If the California fruit-raiser, who foolishly and wickedly does most of the poisoning, would but place pans of clear water, without either strychnine or arsenic, among his orchard-rows, or wherever the birds could reach them, his fruit would not be molested; not even his cherries, for which most of the birds suffer death, either by shooting or the more cruel method of poisoning. The cherries would be let alone then, except perhaps by Master Bluejay. Early last summer, when the cherries were ripe, up in the mountains here I noticed a pair of birds—"cherry-birds" they are called in cherry-time—as they sat perched in the branches of a small oak in the grove, near the cherry-orchard, and just opposite the kitchen window. The larger of the two seemed to have waited for my appearance, for he immediately began: "*Cherry-cherry, cheery cherry—isn't there one for me?*" While the first words were plainly enunciated, the question was hastily uttered and somewhat jumbled up, as if experience had taught him not to expect a favorable reply. But when I said "Certainly, little pet, a dozen of them"—and looked for him to despoil at least the nearest tree, I saw him next at the horse-trough, with others of his kind, as they drank at the rill that runs constantly from the trough and stands in small pools and puddles around it.

Now, our cherries, I claim, are as good as any that are sent to market, and I see no reason why the birds should like other people's cherries better, and slight only ours. Of course they take a few of them; but the man who makes so much fuss over his quart of cherries, should be held by law to use all legitimate means to protect himself without injuring his neighbors' best interests, even if he himself is willing to have his own plantations destroyed by insect-pests after he has killed off the birds. That our orchards are being destroyed by insect-pests is an established fact; that spraying against codlin moth, black scale, red spider, canker worm, and a thousand other worms and insects, is doing as much to injure and decimate both trees and fruits as the ten thousands of the birds that are slaughtered could have done, is also a fact that few, I think, can dispute.

After the fruit-grower had conscientiously killed every bird that came near his orchard, more especially if it committed the imprudence of singing melodiously as it fluttered and flew among the trees, he called upon the wise men of the colleges to help him in his fight against the more dangerous enemy now destroying not only a small part of his fruit, but the whole of it and the trees along with it. In ordinary times, you may observe, the rancher and the hayseed in general wants nothing of the college professors; he doesn't believe in book farming. But when the insect-plague threatened to devour him together with his orchards, then he was ready to cry out for their help. The orchardist wanted sprays, and these men concocted

what he called for, doing but their duty. They could not bring the dead birds back to life. Even the Berkeley University professors can not do that, though my admiration for their learning and efficiency is so great that I advise the man who says a word against them to keep his hand firmly on his scalp-lock while I am in the neighborhood. Nor is it their office to chide the farmer for his stupid wickedness in killing off the song-birds. Professors Palmer, Oldys and Beal of the Biological Survey of the Agricultural Department at Washington, having wider latitude, have gently led him up to the realization of his shortsightedness, and he can now, for the mere asking, obtain the papers they have written to convince him that song-birds were less expensive to keep than it is to keep up a line of experiments and spraying that can not permanently benefit his orchards or enhance the value of his lands.

The rancher and the fruit-raiser had vied with each other in killing birds,—oriole and mocking-bird, blue bunting and martin, grosbeak and robin—till they were satisfied that none had escaped; and then came retribution in the shape of a hurt to their pocket-book—for it is evident that some of them had neither a heart nor a shade of sentiment in their whole anatomy.

How hard-hearted the greed for a few cherries, perhaps a peach or two, can make even a woman! I was shocked to learn, some time ago, when in condemning the broadcast scattering of poisoned wheat for the killing of ground-squirrels, as orioles and mocking-birds were poisoned in this way, I was told by a woman, and she a mother, that it served them right—they destroyed whole peach-crops, carried the peaches off bodily, one after the other. The accusation was so silly that it needed no refutation; but it shows the disposition of the average California rancher and his wife.

The orchardist, however, the modern fruit-grower, has learned better methods; and a more liberal and rational view of this question of bird-protection obtains among the communities more recently established. The Orchard City Grange, of Campbell, has made laudable efforts to protect useful birds; while their next-door neighbors are still savagely hunting the robins, the most beneficial of all birds and the sweetest singers, and are selling them in open market in the city of San Jose. It is a shame! and I do hope that in time the ranchers in the vicinity of San Jose will become convinced that their neighbors at Campbell chose the better part in protecting their birds and guarding their orchards against scale and moth and spider.

In Southern California they have long since learned that the song-bird is not only the best help in field and orchard, but that the song-bird is so attractive to newcomers that they choose their homes where birds abound and are protected. Mr. W. Scott Way is at the head of the bird-protecting movement in Pasadena and that neighborhood, doing faithful service; and we may depend that land has increased in value where the wanton shooting of birds has been stopped. In Redlands, too, an Audubon Society has done good work. From San Lorenzo comes the complaint of a prominent orchardist that pot-hunters are shooting the robins in his neighborhood. If only more such complaints would reach us, half our battle for State protection for song-birds would be over.

Though not, strictly speaking, a Bible-reading or Bible-quoting woman, I feel like praying "Father, forgive them, for they know not what they do," when I see women with stuffed birds, the wings of song-birds, or the aigrette of the snowy heron on their hats. Every woman has a mother-heart in her bosom, and it can only be that she is ignorant of the cruelties practiced in order to obtain this decoration—smacking so strongly of savagery—for her adornment, or surely she would spurn the offer of the most fashionable milliner to deck her hat with feathers torn from the mother-bird's body while she is hovering her young brood, leaving her to perish in sight of her helpless young, who die a lingering death, one by one, of hunger and exposure. Will not the cry of the baby-bird rise to the high heavens, as the accusing cry of the helpless orphan will be heard above?

So much has been written on the subject of late, more particularly by Mr. William Dutcher of the American Ornithologists' Union, that ignorance can hardly be pleaded by the intelligent woman any more. But the intelligent woman does not decorate herself like a savage, for she knows how much more graceful is the sweep of the ostrich plume, how much more elegant the curve of the ostrich tip, than the stiff, glassy-eyed things

that our lovely song-birds are turned into, to gratify the very questionable taste of frivolous, thoughtless women.

In an article by W. R. Welch in THE WESTERN FIELD for February, he says something about the foreigner in relation to our game, that might apply to our song-birds as well. Though I own it is the foreign element that helps on the work of extermination, I must still put in a protest. My countrymen, the Germans, do not, at least, kill the song-bird; for even the wickedest poacher in the Fatherland has still a little sentiment left for the songster of field and forest. The love of the song-bird lives in the heart of the entire people there, enters into every phase of life and the affections, and in folk-song and ballad this love is illustrated. As in the passionate plaint of the swain bidding adieu to his love—

"Die Rosen blühten als ich schied,
Die Lerche sang ihr Morzenhied—"

Roses in bloom and the skylark singing! How more bitter than death must that parting have been.

The young emigrant, on his way to this great, free America, taking leave of the graves of his loved ones in the churchyard, turns yet again as he hears the thrush in the lilac clusters,

"Holde Sängrin unserer Lieder,
Hör ich dich wieder—wann?"

Amaranth, returning to her lonely forest-home, deserted, pleads sadly—

"O Vöglein, Vöglein, sing mir doch,
Ein einzig Lied nur noch vorin Grabe."

And who has not heard

"Wenn die Schwalben heimwärtz ziehn."

No; the German who is guilty of shooting song-birds is not worthy the name of a German; he should be called a Dutchman, with due apologies to the man from Holland.

In a manuscript translation from the German, kindly furnished me by Louise Coffin Jones of San Jose, the learned author of this paper on bird migration asserts that in their travels the small birds are often carried on the backs of the larger ones, and he adds this bit of sentiment: The Arabs say that the little passengers sing to their carriers, to repay their kindness and to shorten the long journey. And always and again it appears in the course of the paper, that wherever the birds emigrate to, it is in order to feed upon some insect, some worm, some caterpillar, abundant in that country at that certain season; and unless these birds come just in time, vegetation would soon be destroyed by insect-pests, and nothing left for man to live upon.

Have mercy on the birds, then, and protect them against those who, from greed of gain, or through wanton cruelty, would depopulate field and forest of our songsters, and rob the country of our safe defense from famine and starvation.

THE SPECIAL SENSES IN ANIMALS.

By Dr. R. W. Shufeldt.

SOME time since, having pointed out in other connections the lines of study we should follow in investigating the nature of tenacity of life in animals, the question of prehension in them, and their comparative strength and agility, I propose in the present contribution to examine into still other phenomena associated with life, with physiological function, and other attributes of the state of existence in various living animal forms in nature.

A discussion of such questions is of great interest to the naturalist, or to any one, indeed, whose habit it is to be constantly in close touch with nature and with the animal world in general. For that person who simply passes through the forests or across the plains and prairies, or over the waters in his boat, seeking what he can merely to kill or fill his game pockets or toss into his creel —and all this with his eyes tightly closed to all else about him—they have no interest; and the consideration of such questions pertaining to animal life as we have been looking into, in no way appeals either to his heart or his mind. The beauties of nature and the wonders of animal existence as they really exist fall as flat upon such persons as does a misdirected envelope thrown into our wastebasket fall upon the debris therein accumulated. Fortunately, however, there are others of inquiring minds, hunters who look far beyond the mere pleasure arising from the chase and capture of game. They think,—and when the naturalistic instinct arises in them the desire to know why certain things exhibited on the part of all animals, man included, are thus and so, then comes the inclination to find out and to investigate.

Fortunate it is for our civilization and progress that this is so, and in these days of widespread information, of the victories of research and knowledge over superstition and ignorance, and the general uplifting of our race, the very consideration of these questions, and the interest so many take in them, is what constitutes the salvation of the entire vocation of the hunter, the sportsman and the explorer, lifting its aims from without the realm of mere savagery, and placing them in more intimate connection with those callings associated with culture and refinement.

Before passing to other things that are to be seen in animals, and before touching upon other phenomena incident to animal life, I desire to say a few words here in regard to the special senses in animals and what we have found out about them. The study of the special senses has always constituted one of extreme importance, as well as one of great difficulty, involving, as it does, researches into and a knowledge of so many departments of learning, as anatomy, physiology and physics in their broadest sense. It is through the special senses that all animals take cognizance of what goes on in the world about them, or gain an acquaintance of those things necessary to existence. When we come to dip down into the literature of earlier days than ours, we find that physiologists and others laid down what they considered to be a fixed law, an incontrovertible fact: that there are and can be but five distinct senses. These have always been known as the special senses, and briefly enumerated are the senses of feeling, sight, taste, smell, and hearing.

These several senses are, to be sure, very distinct, and they are, moreover, entirely re-

sponsible for the behavior on the part of any animal possessing one or more of them. It is through these special senses that any animal gains its information of what is going on about it; and having learned what it needs through them, it behaves and acts accordingly. Through constant behavior under certain conditions, acts become hereditary; inspired by what the special senses have during all time informed us about, we have, as a consequence, the formation of habits. In other words, the habits of all animals have arisen through that experience and information of the environment in which they live, brought to them through the exercise of their special senses.

The power to reason, or even to possess ordinary sense, finds its basis likewise in the preëxistence of these special senses, be they five or more in number. I say five or more, because within comparatively recent time biologists are beginning to believe that some animals are endowed with still other senses than those just enumerated. We hear in consequence of the "density or pressure sense," supposed to be possessed by some aquatic animals, the function of it being to acquaint them, more or less approximately, to be sure, of the depth of the water in which it any time they may be moving. It is clear that such a sense would be of great value to many fishes and marine mammals, such as whales and seals. Other animals are said to possess a "temperature sense," through the operation of which they are able to detect the extremes of heat and cold, or other changes in temperature, without actually coming in contact with the heat or cold producing medium, and are thus enabled to act accordingly. Many would also have us believe that certain creatures, such as honey-bees and pigeons, possess another sense that man and other animals do not have: the "homing sense," by means of which a homing pigeon, for example, can so unerringly return to its point of departure or its home. Those that controvert this opinion claim that bees and pigeons are simply enabled to do this through their great keenness of sight, an explanation I must surely demur to, especially in the case of the honey-bees. I am strongly inclined to believe that not a few of the animals occupying lowly places in the system, possess senses that we do not, and of which we are ignorant, and therefore can not appreciate.

Every once in a while, in some animal or other, is discovered an organ the existence of which was previously unknown to us. It is found to be present in addition to the organs functioning the five ordinary senses, and its structure leads us to suspect the possession of other senses in those forms wherein the discoveries are made. Man makes a woeful mistake when he thinks he sees in his own anatomy the epitome of all there is at present in animal structure. Nevertheless, the only method of studying an organ and its function in general, and those of the special senses in particular, is, emphasizing our modern instruments of precision constructed for the purposes, to begin our researches as far down in the animal scale as possible, and passing from one form to another, carry our dissections and investigations up through the sequence of animals until we reach and include the highest forms known to us—man himself being no exception.

Following such a course as this, investigators have found that their difficulties of interpretation lie not in more or less exhaustively describing the particular structure examined, but rather in successfully working out what the physiology or function of the particular organ may be. It is just as though one were enabled to take a chronometer all apart, and describe in detail all its parts correctly; but it will be found to be a very different matter for such a person to tell exactly what function each and all of these various parts perform, and how, as a whole, the instrument keeps and indicates to us correct time. To describe the anatomy of an eye is one thing, and to elucidate the function of the organ, and correctly demonstrate the matter of sight, is quite another thing. There is an enormous amount of yet unknown lore wrapped up in the physiology of the organs of special sense so far as we at present know them, and as they presumably exist in the lowest animals in the scale of animated nature. Few problems in morphology present us with greater difficulties in their investigation, especially in the case of the more specialized forms of animals. In the lowest forms of all they are quite simple, as we shall presently see.

In pursuing our investigations we are, of course, entirely dependent upon our own experiences as they come to us through the various organs of special senses in our own case, in judging of what all other animals must experience through their corresponding organs of sense. For example, we see with our eyes and hear with our ears, and behave in a certain way when we become informed through these organs of a certain danger that immediately threatens us in our surroundings; coming suddenly upon a crouching and growling tiger in the jungle, which we observe and hear, we do our best to get out of its reach. If we were ever so placed as to see a deer do the same thing, and behave as we did, it would be safe to presume that, inasmuch as the deer possessed eyes and ears morphologically comparable with our own, the deer likewise both saw and heard the tiger as we did. Surely no animal below man has ever been able to communicate that fact to us;—so in such studies, either simple or complicated, we must base them entirely on our own experiences in such matters. In pursuing such investigations lately, zoölogists have met with facts that have led us to believe that some animals are capable of perceiving colors that our eyes fail to detect, and of hearing sounds that are lost upon our ears, owing to their being insufficient, in point of delicacy of construction, to transmit those sounds to our brains.

So much, then, for the special senses as a group. We know a good deal about them, but little or nothing in comparison with what yet remains to be discovered and explained by us, either along anatomical or physiological lines. Often we talk of a "sixth sense" in man and other animals. Usually the sexual sense is referred to, including its various manifestations. But, in my opinion, as compared with eyesight, taste, touch, smell, or hearing, the sexual sense is no sense at all, but an appetite,—an appetite, to be sure, that is perfectly normal, and for the growth and development, and very existence of animals, must be gratified. As thus defined, it far exceeds in importance any one of the five senses singly, or indeed, the five taken collectively, they being really in one way its servants. It can only be compared with that other imperative demand on the part of the system,—that is, the so-called sense of hunger, which in my estimation is also an appetite, including as it does the demand on the part of the system for its food and fluid supply. The two are as the fuel to an engine; deprivation of them soon brings the machine to a stop and death ensues in due time if the supply is not made good. So, too, in the case of our disregard of nature's means of insuring procreation; individual distress and actual harm follows, and if ignored by the world's population as a whole, the extinction of humanity would be the inevitable result. Both the appetite of nutrition and the appetite of venery are subserved by all the other five special senses. Then there may be such a thing as an intellectual appetite, or the craving on the part of the brain for the gratification of one of its chief functions. In various ways, again, all the five special senses are subservient to this sometimes uncontrollable desire, for information and knowledge of all kinds comes to us through sight, hearing, touching, smelling and tasting.

The simplest and most primitive of all the five senses is the tactile sense or the sense of touch. It is seen to exist in the protoplasm *amœba*, mentioned in my article on Prehension (*Shooting and Fishing*, Vol. XXXIV, No. 24, p. 466), and, indeed, is the only sense, of the five recognized senses, known to be possessed by this, the lowest form of animal life. The *amœba* feels all over its body, and if its surface is touched anywhere with a sharp-pointed instrument, it gradually flows away, as it were, from the offending object. Exemplified in various other ways, the tactile sense is possessed by many other kinds of the lower types of creatures. Tactile hairs or papillæ connected with a sensitive nerve we frequently meet with in all the more specialized forms of animals. These hairs may be over the entire body or arranged in groups. When they come in contact with any foreign substance they transmit the fact or the information as to the fact, to the nerve center, and the animals behaves accordingly.

From such primitive contrivances as we see in the lower forms, we may pass to some of the custaceans and insects. In our common crabs, for instance, the feeling apparatus is in the antennæ (or the feelers), which, as in insects, are remarkably modified for the purpose. The tactile papillæ as

found in man and the higher vertebrates are sufficiently well known to obviate the necessity of description here. Their abundance and efficiency varies in different parts of the body, the ends of the fingers being especially well equipped in this regard. The same is seen in the end of the snout in the peccary, the extremity of the proboscis in the elephant, and the prehensile portion of the end of the tail in certain monkeys.

Passing to the sense of taste we find that in man and in the rest of the mammalia it is located in the tongue. Papillæ of various kinds, bearing the well-known "taste-buds" transmit through nerves to the brain the impressions of objects and substances taken into the mouth. But these substances must be rendered fluid before their taste can be appreciated, and for this purpose special glands in and about the mouth cavity supply the necessary solvents. Now in fish these not only occur in the mouth, but are found in some species on various parts of the outside of the body, and through these means they are able to detect the quality of the water in which they swim, or if it contains in solution any substance that may prove harmful to them. Some of the lower aquatic animals are similarly endowed. This is a very interesting fact to know. Through the sense of taste animals are enabled to distinguish between good-tasting and bad-tasting substances, and to detect the majority of foods fitted to take into the system for its nutrition. In most insects the taste organs are in the *palpi*, projections from the under lip, and *maxillæ*, as well as in certain localities in the mouth, or mouth-parts. and these representatives of the invertebrate forms of life must have that sense rather highly developed. Amæba and the lowly protozoans generally may taste with the entire outer surface of their unspecialized bodies, no taste-organs in them being differentiated, and at the best all they can do is to detect the agreeable or offensive, suitable or unsuitable constitution of the fluid element. in which they may find themselves. In some other forms both the olfactory and taste organs are in the mouth parts, and when this is the case it frequently happens that the biologist is unable to distinguish which is which, and it is only when the animal has a definite organ of smell, such as a nose, that in the event of the presence of another organ in the near vicinage it is safe to presume it to be the organ of taste.

Undoubtedly all our game mammals, as deer, antelope, bears and others have the sense of taste fully as well defined and developed as it is in ourselves. Not so, however with the birds, especially those with horny covered tongues, such as the grouse, quail and others. In ducks and geese the tongue is more fleshy, and possibly in such species the sense of taste is more acute, as it may also be in parrots.

(*To be Concluded in June Issue.*)

PHYSICAL CULTURE

Conducted by A. T. NOE, M. D.

IN TAKING up the mental or psychological side of human nature, the inner or sub-conscious man is a very important thing to understand. This invisible yet very real man is the fellow to whom we must give careful attention if we would be strong and well, or be able to use our forces to good advantage. He depends upon his outer brother, the objective man, for his direction, and can only build with the supplies given him by the external man. Of course the sub-conscious has a mind of its own, and aften makes its demands felt to an alarming extent, and these demands must be granted before health is to be procured. In fact, almost every physical desire springs from this inner man and is the expression of his power to affect us. Doctor Pratt calls this constant demand the "I want," and I think it is a very good name for its never-ending call. Every act of the exterior man is the result of this sub-conscious desire and is good or bad as the case may be, according as the outer man interprets the inner man's needs. A drunkard is but the result of a misdirected search for happiness—the outcome of a lack of understanding between the two sides of his nature. The inner man needs a certain kind of material and sets up a craving for it; the outer man tries to answer that demand and often uses strong liquors or other stimulants to satisfy the cry from within. Thus in the unsatisfied inner man lies the starting point of the drunkard, etc.

Very few are aware of the vital importance of the sub-conscious man, and many of us see the results of his existence, yet do not look any further for the cause of these effects. For this very reason many go down and out, when a little knowledge of the inner self would save them. If we deal with these effects only, and in a purely superficial manner, we fail; for as we do not touch the cause we remain just where we started. We must do a little thinking for ourselves and for our own body. It is not safe to let other people do our thinking for us, or to have some one's else ideas rule and dominate us. "We are creatures of habit," and alas! most of our habits are bad ones, I mean physically speaking, of course. We eat when we really do not feel hungry; when we drink it is rarely pure, cold water, but foreign and often hurtful liquids. We cultivate the habit of little sleep, and instead of taking plenty of outdoor exercise we sit around and growl with pains, aches, dyspepsia, and many other ills.

It is illogical and stupid to suppose that the inner man's voice is for nothing; for nature never wastes and she has shown a marvelous economy in the human body. When the inner man calls for food, then and then only is it time to eat. But we have so long forced the inner man to take care of such a huge amount of waste food and trash that it is no wonder he is weak, and it is a big surprise to most of us when he kicks over the traces, refusing to longer obey our unreasonable demands upon him. He should be the guide and direct the needs of the body, but it is such fun to tickle our palates with good (?) things that we don't and won't listen to the "still small voice within."

It is this sub-conscious man that circulates the blood, causes the heart to beat, the lungs to breathe, and organs to act. He is the chemist of the body; the intelligence that digests and assimilates the food and then forms it into bone, nerve and muscle. In spite of the ill-treatment he gets from the outer man, he manages to go on body building, and only breaks down when refused legitimate support and the supplies neces-

sary to his work. He takes care of the body during sleep when the objective man is off duty, and this is the time he does most of his repair work, for he is then free from the interference of the outer man and safe from his "butting in."

The sub-conscious man is the controlling influence of the sympathetic nervous system, of which I shall speak at length in another article. The man or woman who can control this ingenious arrangement and at the same time allow the inner man to direct that control, is truly master of the body. Every force that is elemental in him is at his control, to command at will, and he may use and develop them at will.

Every one must learn that to allow one side of their nature to do all the directing is wrong, that to be wholly mental or physical means failure. Man is dual-natured, and must preserve the balance between the two sides in order to be well. But people are apt to allow circumstances to control their health instead of controlling that matter themselves. You may be in unpleasant surroundings, but if you are master, no exterior environment will affect you. This brings us to the use of the mental training we are now studying. We must think, think, and in a right way; we must use our thoughts to help us gain our desires, and above all we must not force either side of our nature to overwork. We must recognize the rights of the sub-conscious man, and allow him to run his part of the work without hinderance. It is folly to suppose that we can run an engine without power, and this is just exactly what we try to do when we endeavor to force the inner man to use useless materials for his house building. If you must please your palate, at least see to it that at least one-half of what you eat is not for mere pleasure, but that it will serve the necessities of your body and allow the inner man a fighting chance. He must have plenty of soda, iron, potash, sulphur, magnesia, phosphates, etc., with which to keep up his part of life, and he looks to the objective man to get them for him. He expects a quick response to his demands for food and water, and if he does not get them, the whole man, inner and outer, must pay the penalty.

I suppose there are many who will think all this talk about the sub-conscious man is pure nonsense, but it is a scientific fact, beyond dispute and as old as the history of the world itself. Plato, Socrates, Aristotle, and many of the ancient philosophers taught it, and it is accepted by the brightest minds of to-day. Hudson, Pratt, Proctor, Gates and many others have written volumes to prove its truth, but you can prove its existence through your own experience. Have you not been surprised at the ability of your body to adjust itself as it does? Do you not often wonder how you keep as well as you do, in spite of carelessness and lack of bodily attention? What is it that moves and takes care of the organs over which you have no control? Not the outer, visible man, for if that were so you would have the absolute control of every part of your body, and could stop your heart beating, or stop breathing as long as you choose, and begin again when you felt like it. But this is not so; you must breathe, your heart must beat, you must eat, and it is but reasonable to think that there is a power that tends to these things since the outer You is not the one that controls. The exterior man, through the five senses, is able to procure the things he desires or needs for his existence, and he has reason to guide him in his efforts. But the sub-conscious man is not so blessed, and as he does not reason he feels his way through the emotions, and intuition is his guide. Memory is the greatest factor in the activity of the inner man, and is its safeguard. These two powers, inner and outer, are coördinate and there must be harmony and coöperation between them or health is impossible.

In the application of the mental exercises which we are taking up, if you will closely observe the effects upon yourself, you will become firmly convinced of the good to be obtained by this means. When you thoroughly concentrate the mind upon a subject and your body is in the condition to receive the impression you wish to convey, the sub-conscious man takes up that suggestion and acts upon it. For example: You have a weak heart or lungs, and your desire is to overcome that condition and be well and strong. Then, if you will take the proper exercises for developing that part of your body, always keeping your mind fixed on the fact of your determination to be well, you will most surely get good results. It is not easy to firmly fix the mind on one subject to the exclusion of every other thought, for alien

ideas will pop into the head in spite of one's self, but a little practice will work wonders in this direction, and you will soon be able to use your thoughts at will.

The inner man begins to work and repair as soon as he receives the suggestion and is promised the assistance of his outer brother. A man who will stop worrying over his disease and being afraid of everything, by using his will and a little mental firmness, can work himself into health where drugs would fail. He must be sure to supply the inner man with his proper materials to enable him to do his part in the repair work; at the same time he must keep the firm mental attitude that he is doing the right thing and can thereby overcome his condition.

All the fad for pre-digested food is wrong. If people would chew what they eat thoroughly, and eat more plain wholesome food, such as raw vegetables, fruits and nuts, all the rubbish now flooding the market in the name of health would soon disappear for want of patronage. I quite agree with Mr. Dooley in his opinion of breakfast foods when he says "Hivin sent most av us good digestions, but the dochtors won't let 'em wurruk." Teeth, saliva, and the fluids of the stomach were given to us for the purpose of digestion, and when we eat pre-digested stuff the inner man has nothing to do in that direction, and soon falls into the habit of laziness; then when we eat a big meal of heavy, greasy food, there is trouble in store for the inner and outer man.

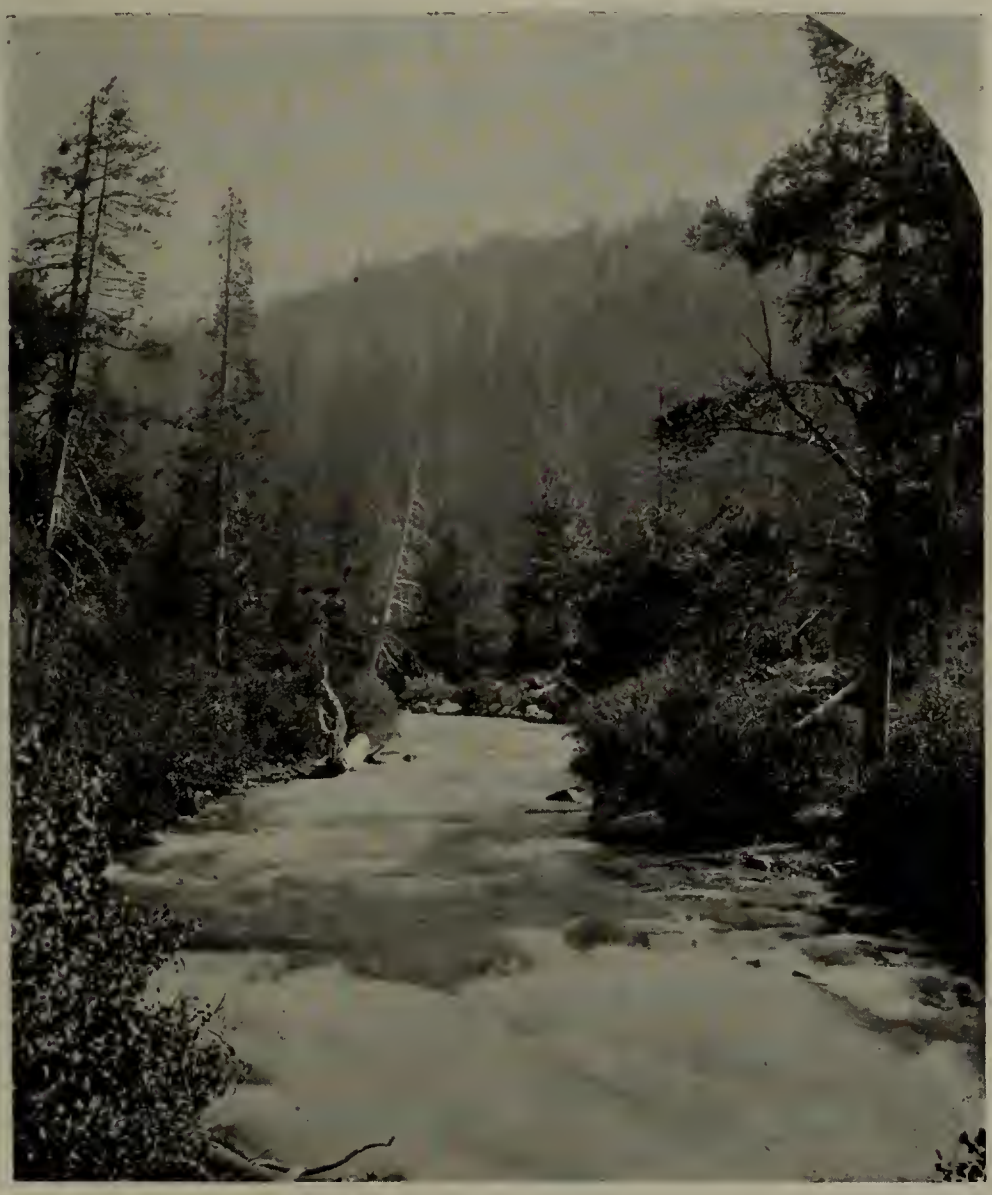
I do not wish to give the impression that I teach the doctrine that merely thinking a thing makes it so. Not by any means. You might think until you dropped, but if you did not back it up with actions in the right direction, and plenty of good common sense as well, all your thinking is so much waste of time. Thoughts for health must be used with exercises for health. You must set the thought nail with your mind, but you must also drive it home with a body blow, full of vigor and force. As I have said before, each one must think for himself, but he must also do for himself. We expect a doctor to cure us with a few pills, when we have abused the inner man till he rebels; but I, a physician, tell you that pills do not cure; they simply remove effects, but the cause is untouched. You can not be cured till you yourself rebuild and overcome the conditions that caused your disease. All disease is the result of wrong living, and you must absolutely live right before you can be sure you are well. A sick headache may be entirely cured by a dose of bromide or a physic, but the poor, disordered stomach that causes the headache is only hurt the more by such remedies, and if you do not repair the trouble in the digestive center you will have another headache, perhaps several, to warn you. If you refuse to listen to these calls from within, you will sooner or later be compelled to hear by a severe spell of sickness that may leave its mark on you as long as you live, if it does not take your life. When you have a pain, a fever, an ache, do not disregard its voice, for it is the inner man calling for help and warning you that all is not right within. It is poor wisdom to refuse to acknowledge that the body is intelligent and knows its needs. When a man or woman thinks they can afford to be heedless of these indications of inharmony, they usually feel that a few drugs will patch them up; but as I said before, drugs do not change the cause of pain nor do they always remove the pain itself. They must go back over the ground they have come, and retrace each step. Each wrong act must be corrected so as to enable the body to overcome each factor that produced the disease. When every condition that caused the sickness is eradicated, then and then only can we say we are cured. If a bridge were broken in San Mateo County you would not go to Yolo County to mend it. It is about as sensible to do that, as it is to pour drugs into the stomach for every ailment of the body. If your back or kidneys are weak, then proceed to work upon them directly; do not expect that a strong medicine taken into the blood through the stomach will cure backache, for the blood is apt to be in poor condition from the drug, and very likely the tissues of the kidneys will prevent proper circulation of the blood, and the only result of the drugs is to force the body to eliminate them as waste. Then you have not helped your back, but you have hurt your stomach.

When you throw a foreign substance into the body you set up a disturbance that is apt to be hard to overcome. We wear our diges-

tive apparatus out taking care of useless materials, and if they are only waste we are lucky. When the inner man rebels and refuses such materials we would be wise if we would listen to his voice. In his intuitive wisdom lies our safety, and if we let him tend to his work without hindering him, he will richly reward us with good digestion, fine circulation, and bodly vigor.

Those who have followed the physical exercises will remember those in the August number, for arms. Having learned to relax and to rest, you also learned to generate and use force. Now in conjunction with that work, if you will firmly fix the mind on the arms and hands, recognizing their great value to you, and that they are your servants, you can by the strong mental suggestion greatly increase their power and at the same time add to your control of that power. I would also advise the perusal of the article, "The will as a factor in physical development," also found in the August number.

Mental Exercise: Fix the mind upon the arms, and while taking the exercises repeat firmly, These Arms and Their Power I Control.



PRACTICAL RIFLE SHOOTING.

By D. W. King, Jr.

PART IV.

THE use of various sights for target shooting is largely controlled by the local conditions obtaining where one happens to reside. There are many places where they still adhere strictly to the open sights and look with disgust upon any one who tries to deviate from the old-time custom. This, however, applies only to turkey and beef shooting, in localities where they have no regular shoots upon regulation targets and at regulation distances.

Many and various are the kinds of sights used by our best target shots, and each one has its following; there are many experts in each class, so the matter is largely a matter of individual preference.

However, the two most used at the present time are the regulation peep for a rear sight, with an aperture for front, and the telescopic variety, which is now allowed by a great many of the Eastern clubs and associations, and which is proving very popular and is entirely practical, even for game shooting.

I will give my ideas as to the best sight for target shooting in each class, having made, tried and experimented with a good many of all varieties. For an open sight for target shooting I prefer a medium-sized black bead in front, with a rear sight that is thin and perfectly level across the top, with a good-sized semicircle for a notch, the notch beveled away from the eye or leaving a perfectly sharp edge toward the eye; this prevents blurring to a great extent, so eliminating one of the principal troubles with open sights.

In sighting, draw the top of the bead down so that it shows all of the bull's-eye (black) above the bead, forming a figure 8 out of the front bead and bull's-eye. You should also see the full bead clear in your rear sight, and not try to draw it down fine in the notch. This makes a sight that, while looking very coarse, is quick to catch, easy to see without straining the eyes, and very accurate. This is the sight I used on the Bear target at the National Bund shoot at San Francisco in 1901, tying for high score on the second score fired. The same gun and sights also won eight of the principal prizes on that target, although it was not brought to the grounds until the last three hours of the shoot on the last day.

The next best sight is the "pin-head" or "bead" sight, which is generally used with a hood over it in combination with a peep rear. Right here I want to say that most of the riflemen are using too small holes in their rear sights—many of them being so small that they look smoky or fuzzy—which is a bad strain on the eye and makes one slow in catching sight, necessitating, of course, one's hold a longer time than needful, and is therefore tiring on the nerves and muscles as well as on the eyes.

Have them large enough so they will look clear to *you*. Different eyes require different sizes, but have yours so it looks clear to your sight. Your eye naturally finds the center, as the center is much clearer than the edges. You will then be able to shoot and see quicker and better without straining yourself all over.

Hold the pin-head at the lower edge of the bull's-eye, making, as before mentioned, a figure 8 out of the combination. By holding under the bull's-eye it enables one to detect the variation much more easily than by holding right on it, as most people after getting the front sight on the bull's-eye will move it off again to see if the bull's-eye is still there or to see if they are not holding a little too high and mistaking the top of the bead for the bull's-eye, a mistake very often made, especially if the light is bad or one's eyes are not good.

I prefer a pin-head that appears about the same size as the bull's-eye, as then you can not only make a perfect figure 8, but can tell positively if you are doing it. If not, the size of the bull's-eye should be one which appears smaller rather than larger.

Many of the long-range shots, when they shot with a body rest, used to prefer to hold the bead at the side of the bull's-eye, and at the same height. This enabled them to hold for wind without destroying the elevation, something one has to watch closely if holding off for wind, and sighted to hold under the bull's-eye.

In using an aperture (called in some places a "ring bead"), there are many sizes, from very small with thin rims to very large and thick rims.

While I do not prefer an extra heavy rim, I want it to show perfectly black and distinct; if they are too thin they blur.

In size I prefer one that shows what appears to be a clear white ring around the black of about two and one-half or three inches; some use a great deal larger than this, but I prefer this size, as it allows the eye to concentrate on a smaller circle and at the same time shows clearly. It allows for a little variation without losing sight of the black outside the aperture, and allows you a little time to calculate when the bull's-eye will be in the center.

The principal fault with too small an aperture for offhand shooting is that the bull's-eye flashes into the center so suddenly and remains there such a small fraction of time that most people try to pull too quick, and flinch in consequence. They know that it will only remain there an instant and practically "jump" at it before it gets away; this as a rule results in a bad flinch and the habit, like most others, grows and is hard to overcome. At one time I would flinch about seven to nine shots out of ten, and consequently did bad shooting—and made very hard work of it, too!

Have your aperture plenty large enough so that you can see when the bull's-eye is coming to the center, and you will be able to pull more deliberately and do better shooting. The aperture is not affected as badly by changes in the light as is a bead, although all sights are affected more or less by such changes.

The telescope is of more recent adoption, and is proving very popular. I fully believe that it will soon be allowed in all of the big shoots of the country, but people must be educated up to it, the same as they have to the other sights, heavy muzzle-loading barrels, palm rests, *et cetera*.

The telescope has been modified in length and price until now one may get a first-class glass that is short, easily detached from the gun—and at a very reasonable price, considering the grade of the glass. It is not necessary to have a long or full-length glass for accuracy, as many people suppose, for the short one is just as accurate, as you do not look through or see the object through the lenses, but simply see the reflection of the object upon the front or object-lens. The only possible advantage a long glass would have over a short one would be the greater distance between the mountings, making the adjustments for wind and elevation a little more delicate. With the present manner of changing by the use of micrometer screws, however, the long glasses are not considered necessary. For off-hand shooting I prefer a glass of about fourteen inches length, three-quarter-inch tubing and detachable mountings, which allow the glass to be put on and moved very quickly and easily, making the gun much easier to handle and get into a case. It also prevents the glass from being knocked out of line—a very common occurrence where the glass is left on the gun. By this arrangement one may also use the same glass on several different guns without a great amount of trouble in changing them.

For off-hand target shooting I would advise a low-power, especially for a beginner or one who does not hold pretty steady. From two to five-power would be the best. The four and five-powers are very popular among the best shots using telescope sights; they give a large. clear field and appear to hold steadier than the higher powers. Some of the best shots, however, are using as high as twenty-power for off-hand shooting, but that is a better power for rest shooting. where they can hold them perfectly steady and draw it down to one-sixteenth inch, which is not necessary for off-hand shooting.

For off-hand shooting I also prefer a medium coarse cross-hair—one that you can see distinctly without apparently paying any attention to it. This enables you to put most of your attention on the target and pulling the trigger. I also prefer to hold (or try to hold) my cross-hairs where I want the bullet to strike, while a few hold at one edge of the bull's-eye, in the white, so the cross-hairs show plainly, and have the rifle sighted to hit center from that hold.

A telescope does not help one's holding at all; in fact, in makes some people nervous, as they can see every little move made and they think they are moving more than they really are; but it allows one to see exactly where they *are* holding and can tell when they are just right.

It also enables the old man, or the man with poor eyesight, to get back into the game, whereas, if these sights were not allowed, they could not shoot with any satisfaction. Why handicap an old man who probably loves shooting as well as his younger and more fortunate brothers, by compelling him to use sights that he can not see to make a good score with? Just as well handicap the young man than can see perfectly, by compelling him to shoot a gun that would not shoot better than, say, a five-inch group, or as good as the older man can see to shoot his. This would be just as reasonable—but you would hear a cry that would deafen you if such a thing were attempted. Allow every man what he wants and what his condition requires; give a man the privilege of using the best gun he can get, but also allow him the use of the best sights, so that he may get the best results possible —and it's results that we are all after. We should be broad-minded and progressive, as we are living in the age of progression.

THE SPORTING RIFLE.

By E. A. Leopold.

PART III.

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TIME was that the value of a sporting rifle was mainly gauged by the number of cartridges that its magazine would hold. The first question always was: "How many times will it shoot?" This question was invariably asked by boys; and, generally, by men who had no practical knowledge of hunting, but who wished to create the impression that they knew the fine points of a sporting weapon. At the present time the questions asked are: "Will it kill moose and bear?" "How large is the bore?" "What is the energy of the bullet?"

The idea seems to prevail in some quarters that the greater the energy of the bullet the more valuable the weapon. The men who persistently advocate big bores and heavy charges have nothing to say about the killing power of the gun to the rear; the energy of recoil, and the effect of the kick of the gun upon the shooter. Many sportsmen who fully understand these matters refrain from making any public comment for fear it should be said that they are afraid of the recoil. They forget that it requires real courage to risk the imputation of the lack of it. Some men can stand more recoil than others without being permanently injured by it. Heavy pounding is not beneficial to health, but leads to inaccurate shooting in most cases. The main qualities required to enable a man to stand heavy recoil are weight, strength and skill: The state of a person's health must, of course, be taken into consideration in deciding a question of this kind. If a person is in fine physical condition he will take a hard rap on the shoulder without serious discomfort; if he be standing clear of all obstructions his shoulder will recede with the gun a sufficient amount to prevent permanent injury. If a sportsman is not in good health he should be careful to select a weapon having a light recoil, otherwise his shooting is liable to be erratic, through "flinching," a habit that is liable to cling to a sportsman for many years after once being acquired. We have heard of knocking game down with a heavy bullet, but nothing said about the sportsman being knocked down by the recoil of his piece. It is a fact that the momentum of the gun is equal to the momentum of the bullet, and this equilibrium between the momentum of the gun and projectile can not be disturbed by varying the weight of gun. The velocity of recoil may be reduced by increasing the weight of gun. other factors remaining constant, but we do not thereby reduce the momentum, as the heavier gun with less velocity has the same power to throw the sportsman off his balance as has the lighter gun with greater velocity. The momentum is produced by the force of expansion of the powder gas, which pushes the bullet forward and the gun to

the rear with equal force; and as the time of action of this force is the same on the bullet as on the gun, equal momenta to the front and to the rear are produced. The same follows from the well-known law that action and reaction are opposite and equal. If the sportsman should stand in a light canoe of narrow beam and fire a heavy charge in a direction approximately at right angles to the keel, he would be liable to go overboard backward. If, however, the gun should misfire, he would be apt to pitch forward on account of having thrown his weight against the gun to stop the recoil which failed to materialize. If the sportsman were standing on land he would place one foot far enough back to give him sufficient purchase to bring a proper portion of the weight of his body into such a position as to enable him to balance the momentum of his gun. The heavy man has the advantage in cases of heavy recoil, as he may adopt a more graceful position when firing, and depend upon the excessive inertia of his body to neutralize the momentum of the gun. The habit of bracing up, and throwing the weight of the body forward to balance the recoil is not conducive to fine accuracy in shooting; but, fortunately, fine accuracy is not generally required when using rifles of large caliber on dangerous game, the mark being very large and the distance very short, as a rule.

The momentum of a moving body is a measure of the force required to bring it to a state of rest in a unit of time, the generally accepted unit being one second. The unit of measure of force is generally the pound avoirdupois. When we say the momentum of a bullet is two pounds, we mean that it would require a constant resistance of two pounds to bring it to a state of rest in one second of time. One pound pressure would stop the bullet in two seconds, and one-half pound in four seconds.

Momentum is a time effect, the effect which a constant force F produces in a time t, and we represent its value by Q. Q equals F multiplied by t, or, simply, Ft, which means the same thing. An examination of this equation shows that the momentum is directly proportional to the force, and also to the time. If any two of these factors are known, the third can be found by a very simple computation. If Q equals Ft, then F equals Q divided by t, and t equals Q divided by F.

It is also essential to know the mass, or quantity of matter considered in order to solve problems in which velocities are given, and the force and time are not known. The unit of mass is, approximately, thirty-two pounds, which is sufficiently close to satisfy the demands of the present discussion. The exact value of a mass, M, depends on the acceleration due to gravity, and varies slightly according to the location. At a place where a body would fall thirty-two and one-sixth feet, under the influence of gravity alone, in one second, the value of M is thirty-two and one-sixth pounds, but, for the sake of avoiding complications we will say M equals thirty-two pounds, and Q equals Mv; in which v equals the velocity in feet per second, often written foot-seconds, or f. s.

If the rifleman will commit to memory these two simple equations—No. 1, Q equals Mv; No. 2, Q equals Ft, he will soon be able to solve many interesting problems relating to the penetrations and killing qualities of bullets, and the recoil of weapons. It is important that the sportsman should understand these matters before he purchases his weapon, otherwise the chances are that he will make a mistake, even though he gets advice from a more experienced rifleman, for the reason that the expert is quite liable to be a man who can take more recoil without inconvenience than the average tyro. It is desirable that the sportsman should have some knowledge of the elementary principles of mechanics in order that he may be able to select a weapon thoroughly suited to his uses, and also that he may have a clear idea of the capabilities of the weapon which he selects, and a solid foundation upon which to build up skill in its use.

In former chapters we have indulged in a slight discussion of some of the principal qualities of modern smokeless rifles, from .236 to .35 caliber, the latter a very powerful weapon with excellent killing qualities, but rather more recoil than would be relished by many sportsmen, and, before taking up a still more powerful weapon, let us go back to the well-tested and justly popular .32—40—165 rifle, and make an application of the principles of momentum as illustrated by the penetration of projectile, and recoil of gun.

What is the momentum, Q, of the .32 caliber bullet, weighing 165 grains, the velocity being 1,385 f. s.? Q equals Mv. As the unit of mass M is thirty-two pounds, or 224,000 grains, we get the weight of bullet in terms of the mass by dividing 224,000 into 165, the result being .000736, which we multiply by the velocity, 1,385 multiplied by .000736 equals 1.01936 equals Q equals the momentum of bullet. The bullet being in a state of rest, an effective moving force of 1.01936 pounds acting upon it for one second of time would give it a velocity of 1,385 f. s., and, consequently, the bullet having attained this velocity, it would be brought to a state of rest in one second by applying a resistance of 1.01936 pounds. The distance it would travel during the one second of time in which it was opposed by a force of a trifle more than one pound, would be equal to the mean or average velocity, or one-half of the maximum velocity. 1,385 divided by 2 equals 692 feet, equals the distance the bullet would penetrate a medium which offered a mean resistance of 1.01936 pounds. If the resisting medium were a succession of pine boards, say seven-eighths of an inch in thickness, the resistance would be enormously increased, and both the time T, and the depth of penetration would be proportionately decreased, for (equation 2), Q equals Ft; if F is increased t must be proportionately decreased. The full jacketed bullet penetrates 18 boards, each seven-eights of an inch in thickness, or a total of 1.311 feet of pine at a mean velocity of 692 feet per second. If the bullet travels at a velocity of 692 feet per second, to travel 1.311 feet would require as many seconds as 692 is contained times in 1.311, which is .00189. We now have the time, .00189 seconds, and the momentum, 1.01936 pounds, and wish to find the resistance of the target, the force F of the above equation. If Q equals Ft, then F equals Q divided by t, 1.01936 divided by .00189 equals 539 equals F equals the mean resistance of the pine target, 539 pounds. The plain lead bullet and the soft nose bullet penetrate eight and one-half boards, and a computation similar to the above shows that the mean resistance in this case is 1.141 pounds. The full-jacketed bullet maintains its original diameter, while the soft bullet is upset to a larger diameter in penetrating the target, which accounts for the greater force it encounters. The amount of upset can be computed by an application of the well-known law that the resistance is proportional to the square of the diameter of projectile. The square of the diameter of the jacketed bullet while penetrating the target is .32x.32 equals .1024. Let x equal the square of the soft bullet under similar conditions. Then, .1024:539::x:1141. Solving the proportion, x equals .2167, which is the square of the diameter of the soft bullet. The square root of .2167 is .465, the diameter of the soft bullet after upset.

The destruction wrought per unit of penetration is proportional to the cross-section area, and this is proportional to the square of the diameter. In the case above the destructive quality of the soft bullet exceeds that of the full mantled by more than 100 per cent. In penetrating an animal the soft bullet and the soft point bullet will always have a distinct advantage over the full mantled projectile, on account of the wider holes they will cut, not only giving a more severe shock to the nervous system, but causing a more profuse hemorrhage and enhancing the chances of being able to follow wounded game on dry leaves. All of these advantages might not follow every shot, but some of them would generally appear. The

amount of upset of a soft bullet on impact on game can not be exactly decided beforehand, as variable factors influence the result, but there is no part of the body of any game animal so devoid of inertia that it would fail to upset a soft bullet traveling at any ordinary velocity, say upward of 800 foot seconds.

Bullets generally pass entirely through game animals, and are therefore lost, but a considerable proportion will stop under the skin on the far side, especially in the case of end on or quartering shots; and the careful hunter will save such missiles for future examination and study. The superiority of the destructiveness of the soft-point bullet over the jacketed per unit of penetration is also governed largely by the velocity; the gain in some cases being as much as 200 per cent. One of the interesting and valuable features of this great gain is the fact that it is attained without punishment to the shooter, the recoil of the piece being the same in either case. It is a fact, not always recognized by sportsmen, that attempts to increase the shocking power of the projectile in any other way result in increasing the shock of the gun on the shooter. Nothing could be more simple than increasing the killing power by increasing the caliber and the charge of powder and lead, and nothing more plain than the fact that such change must always be attended by an increase in the recoil of the weapon, resulting in increased discomfort to the shooter, and damaging the accuracy of the shooting. The statement that the momentum of the gun in recoil is equal to the momentum of the projectile is not strictly correct, unless we include the charge of powder as a portion of the projectile, and to get very accurate results, sufficiently so to agree with experiments made with the aid of the ballistic pendulum, we must consider the bullet and wads, if any, separately from the powder charge, and give to the latter an estimated velocity of about 3,000 f. s. This is in accordance with Sebert's formula, and I have found it to give better results with either black or smokeless powder than the system which considered only the mean velocity of the powder from the time of its ignition until the bullet leaves the muzzle, or one-half the muzzle velocity of the bullet.

I do not consider that the ,3000 f. s. is the maximum velocity of the powder and powder gas, but that it is approximately a mean for the time beginning with its ignition and ending when equilibrium is restored inside the bore of rifle with the outside atmospheric pressure. This takes into account the blast at the muzzle after the bullet has traveled several feet away from the gun, as, indeed, it should, for a long stream of powder and gas issues from the muzzle and keeps up a pressure upon the breach until equilibrium of gas and atmospheric pressures are established; this continued pressure on the breech constantly adds momentum to the recoil of rifle, and any system of computation which ignores it must fall short of telling the whole truth.

We have found that the momentum of bullet is 1.01936 pound-seconds. As action and reaction are opposite and equal, the same amount of momentum must have been imparted to the gun at the same time that it was imparted to the bullet. The powder also obtained momentum and at the same time an equal amount was imparted to the gun, which amount we will measure as follows: Powder charge, weight 40 grains, or in terms of M, 40 divided by 224000 equals .0001785. The mean velocity being 3,000 f. s., Mv would be .0001785 multiplied by 3,000 equals .5355 equals Q. Adding the two momenta, 1.01936 plus .5355 equals 1.55486, the momentum of the gun. Supposing the rifle weighs 7.5 pounds, its weight in terms of mass is 7.5 divided by 32 equals .2347. To find the velocity of recoil. Q equals Mv, then v equals Q divided by M. 1.55486 divided by .2347 equals 6.63, the velocity of recoil in feet per second.

To find the shoulder pressure to stop gun in 1.5 inches: The mean velocity of recoil is 6.63 divided by 2 equals 3.32 f. s. 1.5 inches divided by .125 feet. Time equals .125 divided 3.32 equals .03765 seconds. F equals Q divided by t. 1.55483 divided by .03765 equals 41 pounds shoulder pressure.

Other features of penetration and recoil, such as "work" and "energy," will be explained later.

(To be Continued.)

SOME REFLECTIONS.

By S. D. Barnes.

CONSIDER the European occupancy of the Western hemisphere as having continued but a single day, and the "issue book" at the universal armory may be imagined to show the following memorandum: "6:00 A. M., arquebusses; 9:00, muskets, horse pistols; 10:30, rifles, belt pistols; 11:15, single-barrel fowling pieces; 12:00, double-barrel guns and pocket pistols; 1:20, pepperboxes and revolvers; 2:10, breech-loading arms; 2:30, repeating rifles; 2:45, repeating shotguns; 2:50 to 3:15, automatic pistols, rifles and shotguns." The biggest half of the afternoon is still ahead of us, and there is another day coming and still more to follow. What will be our next demand upon the universal armorer?

Conjecture is worse than futile. Common sense tells us we should be pretty well satisfied with what we have already got. Maybe it is considerably more than we really need—at least there are not a few people who are inclined to think so: but the "knocker's" little hammer must be kept busy, regardless whether it is in denunciation of progressiveness or a lamentable lack of it. It is quite certain that the limit of human inventiveness will have been reached only when the last man reluctantly lays down his corncob pipe, pocketknife and white-pine splinter and passes to that land where perfection abideth. And, until that time comes, it is proper that we should hail each new invention with the stereotyped exclamation: "Well, I'll be darned! What's coming next?"

For several hundred years the problem has been how best to harness and direct the energy confined in a pinch of gunpowder, black or smokeless. Quite early in the game it was found that steel was the best available agent for confining this energy—holding it in the furrow, as one might say—while the weight, density and softness of lead, together with its abundance and consequent cheapness, brought about its selection as gunpowder's yoke-fellow in the task of conquering, civilizing and depopulating kingdoms and continents. It is a long cry between the "hand gun" of the fifteenth century and the automatic arm of today, but evolution is an endless process and its successive steps the wisest of men can not foresee. Coming generations will devise new ways of yoking gunpowder and lead, for the work set for them to do is far from being completed. Perchance there is no fresh sod to turn, but the old fields need replowing from year to year.

In the hands of Pizzaro's soldiery the arquebus was a fearful weapon of destruction, but think how more terrible would have been what one might term the

"first crop" of American repeating rifles—the Spencers, Henrys and Model '66 Winchesters. Turning from warfare to the hunting field, imagine the pioneers of York State equipped with repeating shotguns, or the buffalo hunters of the early '70s bombarding the vast herds at two miles' range with a high-power automatic rifle. Maybe it's a good thing that our inventors made haste slowly. Perhaps it was well to learn the value of our game before we gained absolute power for its extermination. Fifty years ago, from the Atlantic to the Pacific, from the Great Lakes to the Gulf, we were a nation of pot-hunters, and pot-metal shotguns and muzzle-loading rifles were quite as good shooting-irons as we deserved; but since then we have been taught the error of our ways. The conversion to better ways is universal, though in some cases it may be less heartfelt than appears on the surface. White, red or black, the dyed-in-the-wool old meat-hunters have to be good, under penalty of a mix-up with the Circuit Court; and in consequence we can safely trust them with firearms that spout endless streams of fire and lead, and are "dead medicine" up to the limit of accurate aim—and a mile or so beyond.

But it would be a bully good thing for the game if we could hold on to our present laws, and the inner consciousness of their necessity, and wipe out of existence everything that the gunmaker's art has accomplished in the last century. It wouldn't be so very much of a hardship for the majority of us to go back to the guns and rifles of 1804, for they certainly shot all right as far as they could reach; and the game we have to plug at long range now, would become less difficult to approach if perforce given a few years' immunity from danger. But Progress never turns back over a path once traveled. We have got the guns, and we must practice discretion and moderation in their use, if we hope to conserve the game that renders their possession an unalloyed pleasure.

However, this was not intended to be a sermon on game protection, for only the pure of heart have a right to admonish their erring brethren. The writer acknowledges that he is far from being proof against temptation, and he earnestly trusts that chance may not give him a fair shot at the very last mallard, quail or jack-snipe. Not that the result would be beyond doubt until the bird was retrieved and bagged—he is not bragging on his marksmanship, understand—but he would be dead certain to shoot first and moralize later in the day. Maybe his tears, when they commenced to flow, would be prompted almost solely by the thought that he would never, no, never again center just such a target in so lovely a style. "Alas, poor little feathered biped," he would say, "the natural timidity of thy inoffensive race, intensified and accentuated by the hard lesson of man's unappeasable pursuit; the fleetness of thy pinions; thy tolerably slick dodge of fence-rowing around trees and splitting sapling tops—all conjoined did not suffice to save thee upon butting against such a jim-dandy hunter and crackerjack shot as Yours Truly. Ah, ha! I am a darling, and my gun is a peach." And so, even in his grief he would find consolation, and his woe would be lightened by the memory of a difficult feat admirably performed.

THE OAKLAND REVOLVER CLUB'S INDOOR SHOOT.

The Oakland Revolver Club of Oakland, Cal., held its annual indoor championship match of the United States Revolver Association on the club ranges Saturday afternoon and evening, March 5, 1904, beginning at 2 P. M. This match was open to all and conducted under the regulations of the U. S. R. A.

At the same time and place a special prize shoot, open to all with unlimited reëntry, was shot. Any .22 caliber pistol, and any caliber revolver with suitable reduced smokeless powder charge were the conditions. The club ranges were operating in the best possible manner, and the target lighting was especially good.

The championship match was not quite the success hoped for; indoor shooting on the Coast is comparatively a new thing, and the shooters who are accustomed to outdoor work were a little timid about entering the indoor match for fear the light would not be such as would enable them to do good work. This was the first indoor championship match ever held on the Coast under the regulations of the U. S. R. A., but now that the way has been opened we hope and expect to see the match an annual event here as it is in the East.

The entries in the championship match were Dr. Dudley Smith, president of the O. R. C., whose score was 396, and William R. Prall of the Pacific Indoor Shooting Club, San Francisco, Cal., whose score was 394, possible 500.

In the prize shoot of the Oakland Revolver Club there were twenty-five entries, and an interesting coincident is that there were just twenty-five prizes for distribution, as follows:

Smith & Wesson target pistol, donated by John P. Maxwell, Oakland; Star safety razor set, donated by Dunham, Carrigan & Hayden, San Francisco; Ivers-Johnson revolver and pocket safety holster, donated by Baker & Hamilton, San Francisco; picture, "Facing the Enemy," donated by Saake & Co., Oakland; pitcher, donated by Dr. Dudley Smith, Oakland; shaving mug and brush, donated by Oakland Barber Shop, Oakland; smoker's set, donated by Kahn Bros., Oakland; tobacco jar, donated by Howell, Dohrman & Co., Oakland; stick pin, donated by E. G. Dowdell & Co., Oakland; pocket-knife and case, donated by Dr. R. A. Mariotte, Oakland; photograph album, donated by R. A. Leet & Co., Oakland; deerhorn inkstand, donated by J. R. Trego; 1,000 cartridges, donated by the Oakland Gun Store, Oakland; hunting knife, donated by Shreve & Barber, San Francisco; Royal copper match box, donated by Dr. J. M. Stadler, Oakland; 1,000 cartridges, donated by the Pacific Hardware and Steel Co., San Francisco; hunting knife, donated by the Olympic Arms Co., San Francisco; stein, donated by A. B. Saurman, Oakland; art clock, donated by E. P. Vaughan, Oakland; quart whisky, donated by the Chronicle Bar, San Francisco; military hair brushes, donated by the No Percentage Drug Store, Oakland; art head; cartridge case, donated by Otto Feudner, San Francisco; booby prize, Dr. Dudley Smith, Oakland.

The best scores of the individual shoots and the basis for awarding the prizes follow. Five shot scores, possible 50:

William R. Proll, S. F.	48	44	42	40	30
J. R. Trego, Oakland	47	45	44	44	44
Dr. Dudley Smith, Oakland	47	43	43	42	42
Dr. P. A. Mariotte, Oakland	46	44	43	39	36
P. A. Becker, San Francisco	46	44	41	39	..
G. E. Frahm, San Francisco	45	44	42	41	41
F. V. Kington, San Francisco	45	41	30	..	..
W. C. Prichard, San Francisco	44	40	..	..	..
A. B. Saurman, Oakland	42	41	38	36	36
J. Kullman, San Francisco	42	40	38	38	38
T. L. Lewis, San Francisco	38	..	..	..	..
H. Hinkle, Oakland	35	34	34	34	..
E. P. Vaughan, Oakland	35	32	30	30	..
A. P. Miller, Oakland	32	..	..	..	..
B. Jonas, Oakland	31	26	17	..	..
Col. S. I. Kellog Jr., Oakland	31	21	..	..	..
Dr. J. M. Stalder, Oakland	29	28	27	25	..
D. J. Hall, Oakland	26	40	10	..	..
F. W. Duboise, Oakland	22	18	18	..	..
C. B. Straub, San Francisco	22	..	..	..	..
E. S. Dowdle, Oakland	19	10	6	..	..
H. H. Gribben, Oakland	19	4	..	..	..
J. A. Vandergrift, Oakland	17	15	14	12	..
Dr. Sanborn, Oakland	11	10	..	..	..
F. A. Stearns, Oakland	6	5	..	..	..

HINTS TO AMATEURS.

Part III.

By Arthur Inkersley.

THE suggestions hitherto made have had reference only to balls on the tee, though they apply also to any ball that has a good, clear lie. Quite too frequently, however, the ball is in a position in which the principle of letting the club-head travel, for as long a segment of the swing as possible, in the line in which it is desired that the ball shall fly, can not be applied. There may be a lump of ground just behind the ball, in which case the head of the club must be brought down between the lump and the ball. For such a stroke the free swing is not suitable, inasmuch as the club, coming round with full force, does not permit its direction to be changed at the instant after it has passed over the lump and is meeting the ball. The club-head, after meeting the ball, keeps on its course and strikes the ground with a jerk, causing a concussion of the wrists. A ball played out from a lie of this kind is said to be "jerked." The term should not suggest that there is to be anything jerky about the swing; indeed, a jerk and a swing are incompatable. The stroke should have as true a swing as any other stroke, differing from the straightforward driving swing only in the matter of direction. In the jerking stroke the downward swing is apt to follow the upward swing, as in the case of the real driving swing. If the club goes up correctly, it will come down correctly. For the jerking stroke the arms are not stretched out from the body so far as for the ordinary drive; the club has to be swung up more straightly. Besides this, the ball must be rather nearer the right foot than in the drive. As the hands are kept in the same vertical plane with the eye, they will come somewhat in front of the ball, and the whole body will be more over the ball than in the drive. If these things are not done, the ball will be sliced. As a further precaution, the left elbow may be kept slightly more to the front than in the drive. The club must be grasped firmly, so that it may not be turned in the hand as the head meets the rough ground. The right hand may in this case grip the club firmly, the right shoulder being allowed, as a set-off, to swing down very free.

The jerking stroke may be played with brassie, cleek or iron, and should be acquired by all golfers. The stroke is applicable to any cuppy lie and, though not difficult, is often very valuable. With this stroke a good golfer can get almost as much distance as if the ball had a clean lie. If the ball is jerked in the proper manner, the face of the club meets the ball and the brass sole meets the ground simultaneously. It has been said that nearly all professional golfers and many amateurs play most of their full iron shots with this downward jerking stroke—no matter what sort of a lie the ball may have. Full iron shots can, as a general rule, be kept straighter with this stroke than with any other. To accomplish it, the player should swing downward on the ball, letting the right shoulder work very freely down and round.

Strokes of this sort cut up the turf a good deal, but a deep cut direct, if carefully put back in place and pressed down, does no harm to a course. It can be fitted in and will grow again all right.

When a ball is lying in thick grass, the player is very likely to pull it. It is necessary, therefore, to aim somewhat to the right, to counteract this tendency. Then, the long grass is likely to wind itself round the club as the club is drawn back and to interfere with the aim. The club should be gripped firmly and drawn back more slowly than usual.

Besides the ball in a cuppy lie, other bad-lying balls are the hanging ball, the ball lying before the player, below the player, or with a face in front of it. A hanging ball is one which lies on a hill sloping toward the line in which the player desires to drive it. To the inexpert player it is one of the most disconcerting lies, but the expert thinks little of it and gets it away without difficulty. The skillful player does not take much trouble to get under the ball, but appears to sweep the surface of the ground with his club just as if the ball lay on the level. To accomplish this he uses a somewhat spooned club, but employs the same stance and grip as he does for the drive from the tee. The club is allowed to sweep over the ground as if the ball were lying smoothly on the level turf. The face of the club may be turned slightly outward, for this helps a little to get the ball up into the air; but the secret of success of the stroke consists in letting the club sweep over the ground as if it were level. The club selected should be spooned at such an angle that the inclination of the face compensates for the angle of the hill, and then the player should swing as if the lie were a level one. The club should swing downward over the ground until it meets the ball, and, after striking the ball, should keep on in the same line; the elevation being got by the spoon of the club. The general maxim applicable to all bad lies is this: The worse they are, the more quickly should the player swing.

Another bad lie is a hill facing the player, the difficulty being not so much to get the proper elevation as the right direction. To consider first the ball on a hillside lying toward the player, the slope of the hill being at right angles to the line of direction of the hole. The regular club may be made to address the ball in a satisfactory manner by keeping the hands lower than usual, so that the heel of the club is brought lower on the ground. The tendency is to pull the ball and to hit it on the toe of the club, which is made for ground that is nearly level. Having got the club to face the ball fairly, the tendency to pull must be corrected by letting the swing be very free and loose, the right hand being held loose. In this way

the head of the club may be induced to follow on properly after the ball. This, however, is so hard that many excellent players accept the pull as inevitable and stand so as to make allowance for it.

The ball lying away from the player is next to be considered. As the ball lying toward the player is most likely to be struck on the toe of the club, the ball lying away is likely to be struck on the heel of the club. The hands must be somewhat raised, so that the club may face the ball fairly. Accuracy of direction is harder to get than in the last stroke and it is hard to tell in which direction the deviation will be. Though the strongest tendency is to slice off the heel of the club, sometimes an outrageous pull ensues.

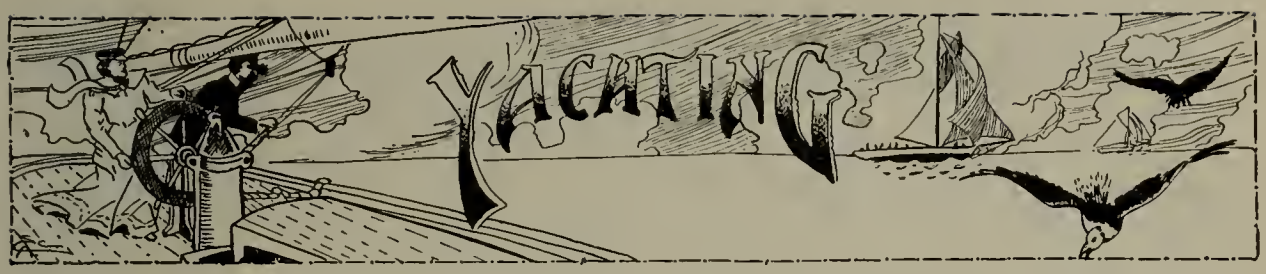
The last bad-lying ball to be considered is the ball with a face in front of it. Its actual lie may be good, but its surroundings make it bad. The nearness and height of the face seriously affect the getting away of a ball in such a lie. If the face is very near, high and steep, an iron must be used; while, if it is not quite so near, a brassie may do the trick. The object is to cause the ball to rise quickly off the face of the club so as to clear the obstacle. To effect this, the club-head must be got well under the ball, and, with a grassy lie, the face may often be cleared with a brassie. But if the ball is on hard ground, an iron is necessary. Whatever club is used, the ball is made to rise more quickly than usual by slicing it slightly, for a sliced ball starts away high. Slicing is done by drawing the club across the ball as it comes down on it. The ball will not travel so far as if the stroke were true, but it will go much further than if it started by going hard into the hill. The ball, so sliced, will fly in a curve to the right; so that allowance must be made for this. If the ball lies exactly on the face, the upward lie will so help to drive it high in air and over the brow of the incline that almost any club may be used for the stroke. The swing must be made in such a manner that the club-head will travel over the ground in an upward sweep, conforming with the lie of the surface. To do this, it is well to stand behind the ball, with the ball about opposite to the left foot.

Though slicing occurs often enough when it is not desired, it is not quite easy to slice a ball just how and when you want to do so. The ball should be rather in front of the player, but the ordinary swing must not be used, as this tends to pull the ball rather than to slice it. The hands, as they grip the club, should be more in front of the player than usual, and the right foot rather more forward than in the ordinary drive. These adjustments of hands and feet tend to produce the desired slice, which will be helped greatly if a slight pause is made at the top of the swing. The pause must not be a long one, but just sufficient to help accuracy of aim. No attempt must be made to hit with unusual force. The worse the lie of the ball, the greater need there is of accuracy, and the more gently should the player swing. The body and back must not bend down so that the player almost falls forward on the ball, but the shoulders must swing round the backbone as on a pivot. The essential fact to remember in playing out of any of these bad lies is that distance is not the important matter, but direction. As the player stands on ground that slopes either up or down, he is apt to lose his balance and should therefore swing easily, as it is not easy for him to retain his equilibrium as he swings forward.

When playing in a wind, it is better to stand with the ball opposite the center of the body and the swing should be especially easy. In driving right in the teeth of a wind, a low tee is used or often no tee at all. If a cross wind blows toward the player, he should drive into its eye. He will lose distance on the first stroke, but will more than make it up on the second. When a cross wind is blowing toward the hole, the first stroke should be played with the wind and the second for the hole. If the wind is toward the hole and from right to left, the player slices his ball, and the force of the wind keeps it straight. If the wind blows toward the hole from left to right, the player pulls his ball. The spin given by the slice or the pull, coupled with the resistance of the wind, increases the speed of the ball and its distance.

If the wind is blowing from left to right, or from right to left, across the line of flight, the drive will be eaten up by the wind and will lose distance. When it blows from left to right, an expert plays to the left of the hole, giving a slice to the ball, which flies further than if played straight. When the wind is blowing from right to left the only thing to do is to keep the ball low.

AT THE END OF THE STROKE



THE SELECTION OF SPARS.

By Arthur Inkersley.

THE lightness, toughness and elasticity of the cone-bearing trees, which grow to greatest perfection in cold countries, render them specially suitable for the masts and other spars of yachts. In some parts of the world teak wood is used, Rangoon teak being of the same weight per cubic foot as American yellow pine, though Malabar teak is heavier than English oak. British yachtsmen obtain the spars for their craft from Norway, the countries bordering on the Baltic Sea and from the forests of North America. Mr. William Cooper, a well-known English writer on yachting some thirty years ago, says that the New Zealand pine furnishes the finest masts in the world. The late Queen Victoria's yacht Victoria and Albert, which is now being broken up, was supplied with spars from the distant colony of New Zealand, and it is said that no handsomer sticks were to be found in any vessel.

The timber of pines and firs is used not only for masts and spars, but for the hulls of yachts. It is usually best if found in cold, exposed situations, and the slower its growth has been the better. It is known commercially as deal or white fir, pine, cedar and fir. Nova Scotia produces many fine trees, among which may be mentioned the *Pinus nigra,* or black spruce, which is light, strong and elastic, and the *Pinus Canadensis,* a hemlock spruce. The pitch or red pine of Canada grows tall and has a smooth bark; it is also very resinous. The pitch pine of the United States grows in poor soils; it is saturated with tar, but its timber is cross-grained and of inferior quality. Yellow pine grows abundantly in the middle and northern states and yields a fine and durable timber. The southern pine, also found in the United States, contains much tar; its timber is light and durable and makes excellent spars. The Scotch fir, which grows in the mountainous regions of Scotland, Northern Europe and North America, yields red and yellow deal, and large quantities of tar, pitch and turpentine. It is considered the hardiest and most valuable species of pine.

The larch is a pine, and produces a tough, heavy, close-grained timber which is excellent for planking. In the British Isles it grows well on barren, exposed land and is found abundantly in Russia and Siberia. Norway spruce yields white fir or deal; it grows straight to a height of 150 to 200 feet. It is found in Norway and other countries of northern Europe. The spars made of it are of fair quality. Silver fir, a native of Switzerland, Italy and Siberia, produce fine timber for ship-building, as also does the stone pine of southern Europe.

The selection of suitable timber for spars depends upon a knowledge of the principles that regulate the growth of trees. Trees fall into two main classes: those that grow by taking wood on to their outer surface underneath the bark, and those that grow inwardly from the center. Trees of the latter class have comparatively thin bark. One of the most important functions of the bark is to protect the sap from which the wood is formed on the outer surface. As those trees which grow internally from the center have no flow of sap externally, a thick protective bark is not needed. The palm is a good example of this class, and has no bark at all. When a tree of the class that grows from the center is cut transversely, the number of concentric rings, or zones, indicates its age. The newly-formed wood passes down toward the root between the bark and the wood of the previous year, and making a complete new layer, incloses the wood of all previous years. The successive outer layers increase the thickness of the stem.

In choosing a spar it is necessary to consider the manner of growth of the tree and to select a stick that will need very little reduction from its natural size to render it suitable. Short pieces should be sawn transversely, one from the butt and the other from the head, so that the heart may be examined. If the center of the concentric rings of wood is in the middle of both the butt and the head, the stick is a well-grown one; but, if the center is to one side of either the butt or the head, it indicates that the tree is not fairly grown and that the sap has been distributed unequally. If the heart shows any signs of rot, other pieces should be cut off the spar, so as to determine whether the defects are local or spread throughout. Then chips should be taken off here and there, to ascertain the depth of the sap before the sound wood is reached. Knots should also be examined carefully. If they are spread evenly at equal distances and are sound, they do not impair the value of the stick; but if two or three knots grow in the same plane round the stick, they make a seriously weak spot. If the knots appear very thick about the head and are close together, the timber will be found weak.

A stick from which it is only necessary to remove the bark in order to get a mast of the required measurement is called a "self-coated" stick. Spars in which the layers of wood have grown in a spiral fashion are sometimes called "twisted sticks" and possess a high degree of strength, elasticity and toughness. They are, however, not very often found.

Usually spars are obtained from beams of squared timber, those that are of close, even texture and fairly free from knots being chosen. But, as the best of the timber has to be taken off in order to bring them to the required size, they rarely turn out as good sticks as the self-coated ones. The best timber is next to the sap and in squaring a beam much valuable wood is cut away. When a spar is made from a square beam, the corners have to be cut off, and more good timber is lost. It would be better to prepare the beams eight-squared, as then less good timber would be lost in the first instance and it would be easier to get a spar from the beam.

The trees from which spars are generally made are the pitch, red, yellow and white pine. Pitch pine makes a good spar but has the disadvantage of being

heavy. Red pine is much used for masts by yachtsmen, and both the yellow and white make good sticks. The specific gravity of the timber varies according to the season of the year at which it is cut and the length of time that has elapsed since it was felled. The squared timber weighs less than the round, because the turpentine contained in the sappy part of the wood is heavy. A cubic foot of white fir weighs about 30 pounds, and, taking cast iron as unity, has a strength of .23.

A topmast should be a nice spar and not too long; indeed, the shorter the better. It should be fitted so that it can be got up or housed as easily as possible; and wide area in a gaff-topsail should be obtained by a high peak and not by a square head. A high-peaked gaff-topsail is the only one that will ever stand properly on the wind. When a craft is close-hauled, the boom makes one angle with her keel, the gaff another, and the gaff-topsail a third. If the mainsail and gaff-topsail are square-headed, the latter is nearly always useless on the wind; while with a short topmast it is easy to get a peaked gaff-topsail; then, if it is necessary to carry the topmast when the gaff-topsail is stuck, the weight aloft is not serious. The topmast should be so fitted that, if the topsail stuck for a few minutes only, it can be housed without any trouble; it should work with perfect ease in the masthead cap and the lower cap. The sheave in the mainmast head for the top-rope should be large enough and should work smoothly; the top-rope itself should be fitted so that there is no chance of its jamming.

A topmast should not be kept standing when it is not necessary to set a topsail, unless a yacht is running before the wind and it is believed that a moderate breeze will enable her to set canvas aloft. In heavy weather it relieves a vessel to get her topmast down. By housing the topmast and cross-trees a yacht that has been making heavy weather and drenching all hands will increase her speed and buoyancy. As soon as a gaff-topsail begins to shake when a craft is on the wind, it is not only doing no good but much harm. Yet yachtsmen often continue to carry a topmast because it has grown stiff and can not be housed easily.

This should not be the case in any properly found or well-sailed craft; a topmast should go up or come down just as circumstances may require. It is very unseamanlike to leave a great spar aloft when it is serving no good purpose; it tends to render the vessel slow.

One of the founders of the Royal Thames Yacht Club introduced on the River Thames a practice that had long been current among fishermen on the British coast. A light rope is bent on well up on the yard and is led through a sheave at the topmast-head and thence down on deck. This arrangement peaks the yard up well, relieving the strain on the topsail tack and making the sail set well.

The length and substance of a bowsprit depend largely on the lines of the yacht and her draft forward; but some English yachting authorities say that in any case the bowsprit should be fitted to work as easily as the topmast, so that it can be hauled in or shoved out to suit circumstances. As the topmast when housed relieves a laboring vessel greatly, so, and in greater degree, does a bowsprit. Many yachtsmen seem to think that a topmast and a bowsprit, once put in position, are there to stay under all conditions, whether the boat is on the wind or running free, and the weather fair or foul. It is said that both these spars should be fitted so as to allow of being shifted as frequently as the sails on them. A massive bowsprit run all the way out in a heavy sea exerts an immense leverage, taking the boat's head down and keeping it down, until the weight of the sea on one end and the struggle of the vessel for relief on the other tear it out of the boat altogether.

Speaking generally, the length of the bowsprit is determined by the draft of water forward. If the draft is nearly the same forward as it is aft, the craft will have a tendency to "gripe," or eat into the wind when she is close-hauled. To counteract this tendency, she must carry a large jib and this means a correspondingly long bowsprit. This is more serious in a long, narrow craft than in a short and beamy one. A long vessel of narrow beam is often found slow in stays, and in most cases this results from the deep forefoot, the tendency to gripe caused thereby making it necessary to carry a large spread of head canvas, to balance her after sail and keep her off the wind. Under these conditions, as soon as the helm is put down, a struggle arises. The rudder forces the stern aside, but the imaginary pivot, on which the boat should turn at once, is not in the right place. The lateral resistance on the bow resulting from the draft of water neutralizes part of the effect of the rudder, and, though the craft comes up a little, she head-reaches considerably. When the jib-sheet is let go, the large spread of head canvas stops her way; to get her round, another touch of the rudder is necessary, and this stops her altogether. She becomes sluggish, headreaching slowly in a big circle; at last, when she does come about, she has to be boxed off with the foresail, and sometimes with the jib as well, and over she goes on her beam-ends before gathering headway again.

Now the great feature of a sloop is her smartness in stays; she should go about with the least effort of her rudder. Her mainsail should be *the* sail; the smaller and lighter headsails she has the better she will travel; her forefoot should be well rounded up, lateral resistance being obtained by curving the keel to half the distance forward of the midship section, and thence rounding the forefoot up gradually. The loss of lateral resistance is somewhat of a disadvantage, but a far slighter one than a deep forefoot.

By eliminating the gripe forward, a small bowsprit and small spread of headsail can be carried, and, the center of effort of the sails being in the right position with regard to the center of the vertical section lengthwise, she will sail where she looks, as she ought to do. She will not stagger along under the strain of canvas set for the purpose of keeping her away from the point at which she ought to be looking. In building a yacht, special attention should be paid to every circumstance and condition that affect the dimensions and work of the bowsprit.

AUTOMOBILES FOR COMMERCIAL USE.

By Arthur Inkersley.

In a recent issue of *The Automobile* H. P. Maxim discusses the present condition of the art of constructing and the cost of operating commercial motor cars. In automobiles used for pleasure there are found four systems of motive power. These are the electric, the steam, the gasoline and the combination. The electric system has electric motors and storage batteries and has reached what seems to be a settled type. In all except the smallest pleasure cars there are two series motors, each connected independently to one of the driving wheels. The storage battery is carried below the body and between the axles. The principles necessary to the successful operation of vehicles of this type are well understood and the vehicles are so certain and trustworthy that they may be reckoned as a part of the regularly established means of transportation. Cars of this type have attained their highest development in the United States.

In steam vehicles used for the transportation of freight the heaviest trucks have attained a standard form of construction. The boiler is placed at the extreme front end of the chassis, generally in a sort of cab. The engines are between the axles and below this end of the frame. They are horizontal and are connected with the driving wheels by a change gear device and differential. While they are found satisfactory for certain work and have attained their highest development in Great Britain, they can hardly be reckoned as a part of the regularly established transportation facilities of the United States.

Though there is considerable variety in gasoline machines, several of the important elements have been practically settled. The gasoline engine in its best forms has been developed into a very trustworthy condition. The principles underlying its successful operation on the road have been carefully thought out and are well understood. It possesses great advantages as a motive power for vehicles. In the case of heavy gasoline vehicles it is believed by some that its final type has been attained. This type consists of a chassis, which contains the entire apparatus for producing power, controlling it and running the car. The engines are in the extreme front of the car, and are covered by a hood or bonnet; they are quite separated from the part of the car intended for carrying passengers. A friction clutch connects them with a change gear device carried below the body of the car. The connection thence to the driving wheels is by means of a differential. The gasoline engine for use in pleasure motor cars has been developed to a high degree of trusworthiness and certainty, especially in long-distance touring vehicles. These cars may fairly be reckoned among the established means of transportation. The final or standard stage has, however, by no means been attained in gasoline vehicles intended for commercial purposes. Germany and France have reached the furthest point in perfecting these vehicles. though the manufacturers of the United States have devoted much skill and attention to them and are not far behind.

In what is called the "combination" system a gasoline engine is coupled to a generator of electricity which is used in electric motors in the same manner as in a regular electric vehicle. This type is less advanced than any of the others, having reached its first stage of development only. Vehicles of this type have been constructed and successfully operated, but nothing can be stated as to the ultimate relation between this and the other recognized forms. Europe and the United States are at about the same stage in the development of this type.

For commercial uses and the general transportation of freight the electric system of motive power is the most highly developed. Indeed, it is almost the only one generally employed in commercial wagons. There are now in New York City about three hundred electric trucks and wagons in regular service. The operation of them has brought to light many difficulties. The cost of maintenance is a highly important practical matter about which much error and vagueness exist.

There is considerable uniformity in the designs of modern electric motor wagons. All use a storage battery of the same kind and all have rubber tires. The amount of batteries and of tires used vary greatly, however, and there is a good deal of error current about these two matters.

Mr. H. P. Maxim has taken great pains to ascertain the cost of maintenance and to determine the relation between the various elements that make it up. He considers the expense of maintenance under six heads, as follows: Battery maintenance, tire maintenance, cost of power, repairs other than on battery and tires, depreciation of the whole vehicle except battery and tires, and interest on the purchase price.

The storage battery found in nearly all vehicles is the Exide, which is manufactured by the Electric Storage Battery Company of Philadelphia. It is the most highly developed light-weight lead storage battery known. As far as running goes, it is quite trustworthy, being free from the liability to short-circuits. buckled plates and other troubles. It is made of excellent materials, the connection between the cells possessing great strength. It is expensive, however, and is subject to the disadvantage of shedding its active material gradually. The number of chargings that have to be given to enable it to perform its required work seems to affect its performance greatly. Department stores generally use wagons having a capacity of 2,000 pounds and covering about thirty miles each working day. A generous battery will accomplish this, allowing for a reasonable factor of safety, on one charge. When only one charge is needed each day, it can be given slowly and to advantage, most of the night being available. In cases where the battery has been scrimped, a day's work can not be finished regularly on one charge. Then what is termed a "boost"

is given during the day. This is a short charge and in a high rate, not much time being available. This increases the shedding tendency of the positive plates and results in a shorter life for the battery.

During the week beginning April 4 a service test of motor wagons was held in the streets of New York under the management of the contest committee of the Automobile Club of America. The tests were for wagons carrying dead loads up to five tons. The heaviest trucks were put in the service of a brewing company and were used on its regular routes. Odometers were carried on all competing vehicles to ascertain the mileage and the load carried each day was weighed. The entries closed on Saturday, April 2, and it was expected that every builder of commercial vehicles would enter vehicles for the test.

The German Emperor has ordered an automobile like one of those owned by King Edward VII. Behind the driver's seat is a structure with glass at front and back and a roof, in which is an electric lamp. The body was built by English coach-builders and is upholstered in crimson leather. The superstructure is removable. The body is painted ivory white, with lines of dark blue and gold. The engine is to be built by the Mercedes Company in Germany.

That wealthy young man, W. K. Vanderbilt, Jr., who increased his pile by marrying Miss "Birdie" Fair, has presented a cup for an automobile race. This he can very well afford to do. Now *Automobile Topics* is wondering what its literary friends, who speak of the Coupe International as the Gordon Bennett trophy, dropping the forename "James" entirely, will call the cup presented by W. K. V., Jr. *Automobile Topics* contends that, to be consistent, they ought to call it the Kissam Vanderbilt cup. It really does not seem to me to matter much what it is called, and personally (if I may claim to be one of the "literary friends" of *Automobile Topics*) I am quite ready to call it the "Kiss 'em cup," "the cup that Vander Bilt," or by any other old name. The idea of playing tricks with so august a name as Vanderbilt does not awe me at all; indeed, I do it with gusto. I feel no responsibility (only pity) for the ridiculousness of the young man's middle name and don't care a hang what his cup is called. As to deeming it necessary "to be consistent" in naming the cups given by J. G. Bennett and the younger W. K. Vanderbilt, it doesn't trouble me a particle.

The racing car of W. K. Vanderbilt, Jr., a rich young New Yorker who recently made a very fast mile on the beach at Ormond, in Florida, is usually spoken of as of 90 H. P., but its makers, the Daimler Motor Wagon Company of Cannstadt, Germany, call it an 80-H. P. vehicle. They say that it is a touring car of a very neat design and that even the 100 H. P. car of the present season will be of a moderate, sensible type. Jenatzy, who won the J. G. Bennett cup in Ireland last year, drove an 80-H. P. Mercedes at a speed of 138 kilometers per hour, but young Vanderbilt has driven his machine at a rate of 149 kilometers per hour. W. K. V., Jr., has sold his car to B. M. Shanley, Jr., and has ordered a 100-H. P. Mercedes for himself. It may be pretty safely predicted that little Billie Kiss 'em will come to a sudden end if he persists in forcing the utmost speed out of his 100-H. P. machine. I do not wonder that "Birdie" feels anxious about her Billie's mania for breaking records.

OPPORTUNITY.

Speed, oh, speed! ye white-wing'd yachts,
Gaily tripping, waters rippling;
Blue of sweet forget-me-nots
Tints the summer sea.

Life and love's morn ye recall,
When hope smiling, bright, beguiling,
Joyous, did each heart enthrall
In the long ago.

Wooing ye, the fickle wind
Now is dwelling in the swelling
Of your sails—fair nature kind,
Attunes herself to ye.

But alas! the law of change
Sternly sending pleasure's ending,
Through the pulsing world does range—
Darkness follows day.

Speed, oh! then, white spreading sails;
Skies are glowing, breezes blowing;
Sport in sunshine e'er it pales
'Neath the gloom of night.

—*Elise Pardow Roma.*

NORTHWEST DEPARTMENT

Devoted to Sport in Washington and British Columbia. Conducted by F. M. Kelly.

But, up to the mountains!
This is not hunters' language—he that strikes
The venison first shall be lord of the feast.
—*Cymbeline.*

SOME people there are who seem mighty inconsistent and selfish to one who would see game and fish thrive and multiply in forest and stream throughout the grand continent of North America, inasmuch as they have no thought of the morrow, showing no concern for the probability of their children, or their children's children, or somebody else's children, developing in the years to come a passion for wooing the wary trout from its lair, or stopping the swift-winged flight of quail and partridge. On the other hand I suppose it is their privilege (and I even question the consistency of such a privilege) to think the other fellow is equally inconsistent in demanding or rather agitating for the preservation of game and fish and that they should be permitted to denude stream and forest of existing life, indiscriminately and without hindrance. It is a good thing that this inconsistent class is in a minority, and that such minority is steadily growing smaller. Each community, however, is generally distinguished by a few representatives of that genus, a distinguishment which is not entirely in accord with the precepts and practices of honest sport. To the true sportsman who observes the law, whether wisely enacted or otherwise, the methods of such persons are most ill-favored.

Up till the present year the fishing season in British Columbia opened on March 16, but as I mentioned in a previous issue, the present season did not commence until March 26, a difference of ten days, owing to legislation recently enacted. Regarding the amendment to the British Columbia Game Act, in which the above-mentioned change occurs, it has lately been shown that the government of the province had no right whatsoever in enacting laws dealing with the fish of the province, that power being vested solely in the Federal Government at Ottawa. Result: Numbers of "sports" living in the province could not agree with the principle embodied in the act, which did not amount to much one way or the other, but which will undoubtedly lead to greater advances along the lines desired for the furtherance of fish protection, and boldly gave vent to the statement that they would go and take trout between the fifteenth and twenty-fifth of March. Sunday the twentieth, dawned, and a gathering of those sports took train to Shawnigan Lake and other resorts along the line of the Esquimalt and Nanaimo Railways. But rods and creels were not in evidence. Hooks and bait, however, were there in plenty. The denouement came in the evening. While returning to Victoria a provincial police officer went through the train, acting on orders, and made a search, finding no fish. Where were the catches? Did those slingers of big talk carry the few they caught openly? Not much. Their street bravado was in their shoes; of true nerve they had not any. Before starting for the lakes and rivers, each would take the chance of being caught, making a test case of the law. They forgot that, however, before boarding the return train, and fish were stuffed into pockets, in fact anywhere they would not be noticed. Nice methods. Clean sports. So eager to make good a prior day's boast as to the catching of fish!

MR. C. COPELAND, A VICTORIA, B. C., SPORTSMAN.

While in all probability, if a test case were made, the breaker of the new amendment might not be convicted, still it would cost considerable more for lawyer's fees than that class of sports might care to contract. Certainly the fees would be too large if the sport were as constrained about money matters as he is in mind. It looks that way; for those who fished during those ten days did it in a skulking fashion, a manner of taking fish shunned by all high-minded, liberal wielders of the buckling rod.

"What the province needs," a sportsman said tersely to me the other day—and I admit the remedy would be salutary, though drastic—"are game laws that will not give the convicted offender option of a fine. Send him to prison. It's harsh, I grant, but it would be most beneficial. One such sentence would be sufficient."

While I am on the fish question and dealing with the Game Act, I may as well call attention to a clause in the late amendment which I did not pay particular attention to before, but which was recently brought to my notice; that is where the law refers to the taking of trout under six inches in length. It reads thus: "This section shall not apply to children under fifteen years of age." When will our legislators grow out of their own childhood? It is a most silly clause and most harmful, for if a small boy did happen to be taken in charge by an officer for an infringement of

the law as it heretofore existed in regard to the size of fish, no judge on earth would convict him; but now the law deliberately gives the children under fifteen years of age permission to take all the trout they wish under that length, and as boys are boys, no small number will be killed. It is a certainty that no man would be guilty of taking fish under that size, and certain boys even will not; but it is equally certain that the small boy in the past did so to a limited extent, for the old law was a deterring influence, making for good. Now there is no restriction.

As I write this I hear the small boy saying, "Gee, you wuz a boy, yourself, once." I'm sorry I can't disagree with him, and say that I'm still in his class; and if he were to further continue and say what I believe he will say, "Bet you caught 'em under six inches yourself," I couldn't honestly refute the charge. I did not know any better; the little fellows who are the coming sportsmen do not know any better; but instead of encouraging them in the doing of wrong, our lawmakers should educate them to do right.

With all that, I know several boys under fifteen (and I trust there are many others) who are just as true sportsmen as their elders; and one said to me a short time ago, or words to the same effect, that such a clause was an insult to his intelligence. I am also of the opinion that if the small boy could be made to realize the harm of taking small trout in any number the question of the propogation of fish would be solved to a very material extent.

The people of Victoria, and I believe I may speak with my pen for the majority of the sportsmen and nature-lovers throughout British Columbia in the matter, greatly approve of the government's course in recognizing the good work done by John Fannin, late curator of the provincial museum, in his retirement from active life, granting him a liberal retiring allowance. He was the creator of the museum, and he has reared a monument that will endure and attest to his grand nature in the years to come. His work and fame have not been confined to this province alone, and his investigations brought him many honors, one of which was the naming after him of the new species of big horn discovered in the ranges back of Dawson some years ago. No more fitting comment upon the man and his work could be written than the following taken from a recent editorial in the Victoria *Times*: "All will regret that there has been any necessity for the retirement of the man who loved nature and the products of nature with his whole soul, and who copied nature so faithfully in his treatment of the specimens he gathered and that were committed to his care for the benefit and delight of future generations. Mr. Fannin studied the subjects of his works in their natural environment. In his days of activity he was in disposition a sportsman, in temperament an artist, in devotion to research a scientist, and in heart a humanitarian. His principal delight was investigation. All he gathered in his private capacity was unreservedly placed at the disposition of the province, and we are fortunate in the fact that such a man was sent forth to labor in our behalf at such an opportune time in the natural history of the province. May John Fannin live long in rest from the labors of an active and useful life."

A DIANA OF THE NORTHWEST.

NOTES.

A. Castleman of Boundary Falls, had an experience with a panther recently which he would not care to have repeated. He went to his stable one morning for the purpose of feeding a horse, and as he opened the door, saw what he took to be a dog partly hidden in some hay. He reached out to pat it, when the animal with a snarl sprang out and ran down a gulch some little distance away. It proved to be a large panther. Mr. Castleman hurried back to the house, and with his son started out with rifles in pursuit of the great cat. After several shots were fired, all of which took effect, the panther was bagged.

Recent Dawson advices tell of the discovery of the complete form of a mastodon at Hillside, on Quartz Creek. It was imbedded thirty-eight feet in the earth when found, and the use of a steam thawing plant was necessary to unearth the immense animal. The hair and skin are said to be in a perfect state of preservation, and the big tusks which remained fastened to the skull, are in splendid condition. It is estimated that the skeleton is worth at least $50,000, as there is but one, or perhaps two, in existence which will equal it. It was found in the bed of an old channel, well in the zone of perpetual frost, which accounts for its excellent state of preservation. There is some talk of exhibiting the skeleton at the World's Fair, St. Louis.

Large eagles are not uncommon things in these parts, but occasionally an exceptionally large one falls a victim to the skill of the hunter. James E. Cullen, of the Ivy Hotel, Copalis, Wash., killed a large gray eagle a short while ago which measured seven feet two inches from tip to tip of wings, and three feet from point to end of tail.

Re the forming of Clallam County, Wash., into a national park and game preserve, the people living thereabouts, and who derive not a little of the world's goods from the hunter and tourist, have registered a kick. They have a splendid big-game country behind them which is practically untouched; and from what I can learn of the district I believe there are more elk in the Olympics than anywhere else in the United States. As for trout—well, Lake Crescent can not be excelled anywhere in the Northwest, and if one knows what that means one knows that it can not be excelled anywhere. Trout go by the pound there.

D. C. Sisson, a young man of Port Angeles, Wash., who has been acting as a guide for hunting parties in the Olympics during the past few years, was arrested on March 23 for slaughtering elk. Prosecuting Attorney Clementson laid the information and the warrant was issued by Judge Hatch of the Superior Court. The remains of five elk were found in his cabin back in the mountains.

Oregon once teemed with big game, but years ago the ruthless raids of the "deer skinners" played havoc with the forest denizens until rigid laws were enacted tending to the preservation of the few stray survivors of the slaughter. Now in the heavy timber of Josephine County and north toward the coast, prospectors report a herd of elk more than thirty in number. Not many, 'tis true, but if the good work of enforcing the law is kept up Oregon will be able to boast of the grandest asset a State may have—large herds of game in its forests.

During the past season wolves have been very plentiful in the north, especially in the Upper Stewart region. Near Fraser Falls as many as one hundred have been seen in a single pack. Around Dawson, also, they have been very numerous, frequently following travelers but not in such great numbers. Nevertheless they have been the cause of considerable anxiety to those who are forced to be on the trails, and various adventures are recorded.

It was reported from Port Angeles that the body of a German baron was found near that place a short time ago, beside the dead carcass of a bear. The

BEAR RIVER, NORTHERN BRITISH COLUMBIA.

testimony of what had seemed was silent but self-explanatory, telling of a desperate fight in which the result told of an equalized battle, odds being on neither side.

Otter have been very scarce in these parts for some time past; but occasionally the valuable fur-bearing denizen of salt water is taken close to the busy haunts

GLACIER, HEAD OF BEAR RIVER.

of men. A short time since one was secured in False Creek, in the city of Vancouver, B. C. Its capture was reported as follows: "A millman was standing on a boom of logs, a pike-pole in his hand, when he happened to see a head break water close alongside. At first he thought it was a hair-seal, which are always plentiful in these waters, but it proved to be a young otter after it had been killed with the pike.

YACHT MOORINGS, NANAIMO, B. C.

While duck hunting the day prior to the expiration of the season, Jack White, a well-known sportsman of Victoria, was drowned in Beaver Lake, owing to his canoe capsizing. He had no chance for his life, the water being icy cold; and besides some sixty cartridges which he carried helped to drag him down.

The British Columbia Fish and Game Club held its annual meeting during the middle of March. Much good work has been done by the association since its inception. The preservation and propagation of fish and game are of course its chief objects. Fish ladders have been erected in Mill Stream, which will undoubtedly be of considerable benefit to the future fishing of Shawingan Lake, heretofore a favorite resort for the disciples of Walton. Other lakes and rivers will also be stocked with fry in the near future, the Dominion Government at the request of the club taking an active interest in the matter.

The Vancouver Rod and Gun Club have imported forty brace of partridge from England. They were set at liberty and in a few years the pleasure of partridge shooting will reward the nimrods of that city.

Lovers of English singing birds in Victoria imported a large number of larks, finches and robins from the motherland, the birds arriving late last fall. They were caged in the park, but the finches and robins did not thrive well, many of them dying. The larks made a better fight, or were made of sterner stuff, but would probably have gone the way of their more tender feathered kind had they not been set at liberty, as were also the few robins that remained.

At their last annual meeting, the members of the Victoria Gun Club elected the following officers for the ensuing year: President, Richard Jackson; vice-president, Otto Weiler; captain, W. Bickford; secretary, C. F. Banfield; treasurer, W. H. Adams.

Yachtsmen in these parts are beginning to stir themselves, and a goodly number of yachts will be in commission ere the current issue of WESTERN FIELD leaves the press.

The officialdom of the Seattle Yacht Club comprises the following well-known tiller-holders, men who know the game, and who love sport: Commodore, C. D. Stimson (retired); vice-commodore, H. C. Henry; secretary, C. W. Stimson; fleet captain, Captain Foster; trustees, Maurice McMicken, Fred Fisher, General E. M. Carr, F. S. Stimson and R. R. Spencer. At a recent meeting the club decided not to hold a regatta as premeditated, deciding to be well represented at the big international meet to be held off Victoria during the week of July 4th. At the same meeting, the advisability of building a palatial clubhouse was discussed and a committee was appointed to investigate the matter, reporting later. Some of the flyers of the club and their skippers follow: Olympic, Commodore Stimson; Owasco, H. C. Henry; Evelyn May, C. W. Stimson; Kelpie, Captain Foster; Drift, Maurice McMicken; Halcyon, General E. M. Carr; and Bonita, the fastest craft among A class boats in Northwestern waters, F. S. Stimson.

The Drift and Halcyon are having auxiliary power installed. The Olympic has had it for several years.

Outside of the boats belonging to the Seattle Yacht Club, there are a large number hailing from that city, principally B and C class boats.

The Johnson brothers are building a sloop which to those who have looked over her lines promises to be very probably a winner in the international B class. She is forty feet over all, with a waterline of twenty-five, and a beam of twelve feet. She will draw six feet, having a fin keel, with two tons of lead, and her sail area will be ten hundred and fifty square feet. She should prove a formidable rival for the Wideawake, now of Vancouver, B. C., and owned there by Vice-Commodore Hodson of the Vancouver Yacht Club. Those two boats should put up a splendid race, as the Wideawake, though several years in the water, still retains her splendid speed, being first in a number of regattas in Puget Sound and B. C. waters. She

McCurdy, Photo.

LAVITA (SEATTLE).

is thirty-five feet over all, twenty-three on the waterline, with a beam of ten, draws six feet, and has fifteen hundred pounds of ballast and carries a thousand square feet of canvas.

The Vancouver Yacht Club members are erecting a splendid new clubhouse on their water front, Vancouver Harbor. It will be two stories in height, the upper being for social purposes, while the lower will be reserved for the storage of dinghies, sails, etc.

For its one design class, the Victoria Yacht Club has arranged the following programme of races for the present season: May 14, 28, June 11, 25, July 9, 23, August 6 and 20. Lieutenant French, Royal Engineers, has been elected captain of the class for 1904.

At the time Mr. Day of *The Rudder* published the cruise of the Seabird, not a little interest was excited in her ability for cruising in all kinds of weather. Two boats after her style will soon take the water flying the Victoria Yacht Club flag. Mr. Stanley Laurie built one, while Mr. Taylor's 'prentice hand fashioned the other. They will be quite an acquisition to the fleet of pleasure boats in Victoria waters.

Mr. Cuppage has entirely refitted his fine sloop, Gwenol, and she will undoubtedly be heard from in the big regatta.

Secretary Pearce of the International Association promises a banner meet for the boats of the association this year. It is certain that he will do his utmost to make it so, for he has the enthusiasm of the true yachtsman, and it will be no fault of his if the visiting boys do not enjoy thoroughly their visit to Victoria.

For the current season, the members of the Victoria Lawn Tennis Club have named the following officers: Honorary president, Sir Henri Joli de Lothiuiere; president, E. V. Hodwell; vice-president, H. G. Barnard; honorary secretary-treasurer, Alexis Martin; executive, D. M. Rogers, P. W. Keefer, A. T. Goward.

M. R. Carr, Photo.
THE THISTLE ELEVEN. CHAMPIONS CALIFORNIA ASSOCIATION FOOTBALL LEAGUE, 1904.

M. R. Carr, Photo
INDEPENDENTS. RUNNERS-UP FOR THE CHAMPIONSHIP C. A. F. B. LEAGUE AND WINNERS OF THE C. A. F. B. L. CUP, 1904.

H. L. Betten, Editor.

"The poor dog, in life the firmest friend,
The first to welcome, foremost to defend,
Whose honest heart is still his master's own,
Who labors, fights, lives, breathes for him alone."
—Byron.

THE TRAINING OF THE FIELD DOG.

No. 12—Correction of Faults.

NASMUCH as it is no longer considered necessary to teach a dog to drop to shot and flush, I have devoted no time to this unnecessary accomplishment.

I take it for granted that the reader fully comprehends that the methods used in steadying a dog on point will have a tendency to make him steady to shot and wing as well, for when his natural inclination to break the points and jump in and flush has been curbed he no longer seeks to follow the birds until after a reasonable lapse of time, or in pursuance to an order from his handler.

Dropping to shot and flush was once considered a necessary accomplishment of a well-trained dog, but failed to serve any useful purpose beyond that it kept the dog in abeyance while the birds took wing and settled down in cover. A period of stanchness enforced after the birds flushed and while the dog was standing will be found to be just as conducive to steadiness besides giving the dog a decided advantage in marking down birds of his own accord (in which he was often handicapped when forced to drop in high, dense cover which obscured his view). This might not be considered of any advantage by the average sportsman, but continued association with experienced brainy field dogs will reveal the fact that they soon learn to mark the flight of birds with great precision, and especially so if they have been allowed a lengthy period of self-hunting.

In instances where, through improper methods of training, the dog shows a tendency to break in at shot and fails to heed your command to ho, or drop, you should follow him until you secure control over him, when he should be taken back to the spot he occupied before breaking in. Never remain where the error was committed and call the dog to you, but go to him or meet him half way and walk back to the scene of his remissal and place him in a rigid position, commanding him to ho while you check any tendency to move up. Continued breaches of stanchness to shot and wing should be visited with carefully graduated punishment, which must be varied according to the disposition of the dog. It is well to allow the timid bird-shy or over-cautious dog considerable latitude and drastic measures should not be instituted. Speak to such in a mild, chiding voice, but repress the slightest evidence of unsteadiness by returning the dog to his original position. In this way he will not be cowed, and when ordered will likely hunt in his usual manner.

Skilfull trainers make no effort to check the first evidences of unsteadiness in timid dogs, but rather encourage them to break in and chase, as in this way they instill confidence and dash into dogs which otherwise might develop aggravating faults, such as blinking and over-cautiousness. After continued experiences have made the dog bold they resort to a careful process of instilling steadiness to shot and wing, which may be continued over a period of months in order to preserve intact that eagerness and confidence which characterizes the high-class field-trial performer. The amateur with his lack of experience will often find it a hard matter to make these corrections after a dog has enjoyed a long period of immunity from discipline, and in most cases it is advisable

"BUCK OF KENT."

to enforce steadiness soon after the dog commences to point, and if the lessons are properly conducted no serious difficulties will be experienced. It is well to remember that loud, boisterous commands have no place in connection with the steadying of a timid dog, and corrections should be made in a cool, deliberate manner which while they clearly show your disapproval of his tactics do not cause the dog to lose confidence in you or arouse his fear in any way.

With the bold, hard-headed or willful dog the discipline may be increased in severity, and oftentimes it will be found necessary to accompany the restriction of unsteadiness with a certain amount of punishment. Firmness is an essential in handling such dogs. and no breach of stanchness should be overlooked. When the dog breaks in, always return him to the position he should have held and repress his desire to follow the birds for a minute or more. If other methods do not prevail over his desire to rush after the birds you may apply punishment in a mild form, using the whip as a means of correction. In cases where, through long neglect, the dog has become a habitual chaser, the spike collar and check cord may be brought into requisition. In this way the dog is always under control and punishment can be instantly applied, not only with the spike collar but with the whip also if such a course must be resorted to. Generally the spike collar alone will have the desired effect, and after a few repetitions of snubbing the dog concludes that it is hardly advisable to chase or break in. To insure perfect steadiness you should kill a few birds in front of the dog and note the impression made upon him when he notes their fall. Should he show an ungovernable desire to rush in, continued corrections with the spike collar or spike collar and whip will bring him to time. With cunning dogs the course advised in steadying crafty animals on point may be resorted to, although as a matter of fact if discipline in the above has been thorough the dog should require no further lessons in steadiness, and should stand firm under most unusual conditions.

The majority of field dogs, and especially those which have not been associated with barnyard fowls from earliest infancy, possess an inclination to pursue and kill poultry. This failing can generally be corrected by mild applications of the whip, or often by simply enforcing the order to "ho." In more confirmed cases, when you have caught the dog in the act of killing a chicken, take him by the collar, lead him to the lately deceased, and administer the whip in such a manner that the culprit will remember the episode for some time to come. Should this mode of correction fail, various plans can be substituted, as, for instance, the following, which the writer instituted on several occasions and which was found to answer the purpose admirably. Years ago the writer possessed a setter which developed into an inveterate chicken-killer. Being a very cunning individual, he refrained from making inroads on the feathered tribe when within my sight, but whenever the opportunity to

UNWELCOME ATTENTIONS.

"SUVER G."

kill a chicken unobserved presented itself he was, in the vernacular of the street, "Johnny on the Spot," and the numerous complaints of neighbors necessitated an immediate change of heart on the dog's part or his removal to other parts. Exhausting all other means in a futile endeavor to stop his depredations, I finally made use of an old, weather-beaten cock, past his prime, and conceded to be worthless for table purposes, and after sifting a half-ounce of sulphate of quinine over his plumage, turned him loose in a pasture field. A few minutes later the dog was cast off in the same field and immediately upon striking footscent commenced to road on the track of the rooster, and satisfying himself of the proximity of the bird, returned to me so as to allay my suspicions, then returning to the quarry by a circuitous route, and when he thought he was unobserved, made a drive and the aged chanticleer fell a victim to his onslaught. When he returned, saliva was dribbling from his flews and there was a peculiar expression on his visage which betokened that all had not gone right. Arriving at a pool of salt water, he drank a considerable quantity, evidently in an endeavor to get rid of "that seal brown taste" in his mouth, and showed every indication of misery. An occasional champing of the jaws was another sign that something was amiss, and altogether he presented a ludicrous appearance. To add to his misery, he was led back to the scene of bloodshed, and in addition to a thorough "hiding," the dead fowl was placed between his jaws and he was forced to carry a mouthful of the quinine-impregnated feathers in his mouth for a considerable distance, several half-hitches being taken over his jaws with a leather lead, so that he could not open his mouth to eject the gall-laden plague of the late deceased. It needed but one repetition of the above experience to thoroughly cure this dog of his chicken-killing propensities and he always gave the bipeds a wide berth thereafter.

Chasing rabbits is another fault quickly acquired and not always easy to eradicate. This is especially the case in high-strung, courageous and willful dogs, which will often chase with great determination, and in localities where jackrabbits are plentiful, will continue to follow one rabbit after another for a half day or longer. Unless your dog needs encouragement in ranging or is excessively timid, it is best to effect a cure at the start, and if the opportunity presents, it is advisable to kill the first rabbit that springs up before the dog and arouse his fear by belaboring him with it, pinching his ears, nose and flanks in a cunning manner which will lead him to believe that it is the animal itself which inflicts the punishment. Should this method fail to prevent him from chasing, attempt to shoot a rabbit ahead of him when he is chasing, and taking him to it, hold it before him, or belabor him with it, and give him a thorough whipping. This will stop the average dog from engaging in further coursing, but in aggravated or long-standing cases it will be found of little avail, as the dog's cunning will come to his aid and he will not chase when within a reasonable distance of his handler, knowing well the consequences of such a course. Instead, he will often make a long cast to heavy cover and endeavor to keep out of sight of his handler while starting the

THE DADDY OF THEM ALL.

HER FIRST POINT.

rabbit. Once the chase is on, the sound of the whistle or yelling of the irate handler has no effect whatever, and in the case of a dog which is a habitual chaser and inclined to remain away for hours, the handler's state of mind can well be imagined. It is well when training a bold, willful dog in a locality infested with rabbits, to break him of his liking for the "long-ears" at the very inception of training. This can often be accomplished by killing a rabbit and thoroughly impregnating its fur with sulphate of quinine, much in the same manner as used on the fowls referred to in this article. Bring the dead rabbit into the kennel yard and allow the dog to sniff at it, then excite his curiosity and encourage him to grasp it by swinging it before him in a tantalizing manner. Then force him to open his mouth and allow him to obtain a taste of the quinine, belabor him with the rabbit, and finally, when his fear or aversion is aroused, follow him from place to place until he takes a thorough dislike for the beast. By frequently killing rabbits and associating the taste of quinine with their presence it is often possible to prevent a dog from commencing to chase, thus saving much time and labor. When an opportunity presents to kill a rabbit before the dog, you may also make use of the quinine, and by rubbing a pinch into the fur and placing the jack in his mouth the dog will learn to blink the "long-ears," just as he may be taught to blink chickens. In isolated cases the intelligence and cunning of the dog will work against the effectiveness of the above methods, and in such a case the saddle-horse may be brought into use and the dog run down and led back to where he started, when he should be reprimanded for failing to heed your whistle. Such a course will not always effect a cure, as the dog learns that unless you are mounted you can not overhaul him, so the following plan, which I have found effective, may be resorted to. Have an associate on a saddle-horse follow you at a distance, so that he may keep out of sight of the dog, and as soon as the latter starts to chase, give the horseman the signal to follow. By running a dog down in this manner he is made to realize that he is at your mercy and must obey the whistle or accept the consequences of his refusal without the satisfaction of indulging in a long chase before punishment is meted out to him. The rankest bolter or rabbit-chaser can be brought to terms if the above course is persisted in for a reasonable length of time, and if it is necessary to impress upon the dog's mind the fact that he is under such strict surveillance at all times, the occasional presence of the horseman will have a salutary effect and prevent him from resorting to his old-time tactics. Tying a dead rabbit to the dog and making him carry it about for hours at a time is a method resorted to by many, but will hardly be found of use in the case of a hard-headed, cunning dog. Such an animal uses his reasoning faculties, which are often of a high order, and ordinary methods are of no avail in dealing with such.

A bolting or self-hunting dog which is not amenable to discipline may be dealt with in much the same manner as the rabbit-chaser by making use of the horse. Such a dog should be taught to retrieve by the force system, and whenever possible, birds should be shot over him so that he will acquire a love for retrieving. This latter plan alone

A SELF-HUNTER.

has been responsible for the subjugation of many seemingly incorrigible bolters and will be found worthy of trial. It should be marked by an absence of punishment or strict discipline. Shooting over a dog's points and allowing him to retrieve when he has acquired a liking for retrieving has a tendency to greatly reduce the range of a dog. If it is found impractical to keep a self-hunting dog in bounds until birds are found, he should not be cast off until a bevy has been found by another dog or the handler, when he may be cast off after a bird or two has been killed over the other dog's points, or when flushed by the trainer. If he will refuse to remain under control, the check cord may be brought into use until he has made a point or two in this manner, when he should not attempt to bolt when released. However, should he show a tendency to range out of bounds, he should be called in before he gets beyond control and by constantly repeating the orders to come in, he may be kept in hand. Occasionally one meets with a dog deficient in mentality, which possesses an intensified desire to run regardless of orders and without purpose. When such an animal is met with corrections will be of no avail, but at the same time one must not condemn a dog until he is absolutely certain that he is deficient in mental qualities. The above type will run for hours, or even days, and will wander through a half dozen counties with the utmost nonchalance, led on by an uncontrollable desire to keep running. Such a dog is a vast remove from the bold, self-hunting dog of superior intelligence and high natural qualities which applies his energies to finding birds instead of wandering about in an aimless fashion. The latter always returns to his handler or starting point after a few wide casts, but the bolting nonentity must be hunted up time and again, and is a source of trouble and expense.

CALIFORNIA DOGS IN EASTERN FIELD-TRIAL COMPETITION.

IT IS more than likely that the past performances of California dogs in Eastern field-trial competition will be eclipsed by those of individuals which will be sent East this summer in charge of Mr. W. B. Coutts, the well-known handler of field-trial winners.

Mr. Coutts's past successes in Coast competition warrant us in believing that once he has his dogs thoroughly acclimated and is acquainted with methods in vogue with Eastern trainers, he will be able to take the measure of many of the greatest performers in America with individuals of his representative California string.

The showing made by dogs from this section which have been accorded opportunities to meet the Eastern cracks is one of which we may well feel proud, and goes to prove that while our high-class performers are few in numbers they are fully the equal of a large majority of Eastern winners. The performances of individuals such as Ch. Senator P., Ch. Peach Blossom and Cuba Jr. have caused the eyes of Eastern fanciers to be turned Coastward, and the advent of such a formidable combination of Coast winners as will be sent across the divide in charge of Mr. Coutts is sure to cause a stir in field-trial circles on the other side. Without exception the animals in his string are true representatives of this State, as they are not only owned by California fanciers but were bred by their respective owners. This, coupled with the fact that their handler is a Californian, is bound to arouse keen interest in their competition.

Among the stellar lights of dogdom which will accompany Mr. Coutts in his quest for field-trial honors may be mentioned that incomparable brace of setter bitches, Ch. Peach Blossom and Terry's Lady, Kilgarif, McCloud Boy and Keepsake, with a possibility of Harry II. joining the caravan before it starts. Peach Blossom will be remembered as the winner of second, P. C. F. T. Club's Derby, 1901; first, P. C. F. T. Club's A. A., 1901; divided second, Pacific Northwest A A., 1901; divided third, P. C. F. T. Club's A. A., 1902; first, P. C. F. T. Club's A. A., 1903. These wins were scored in the hottest Coast competition, and in addition she was the winner of divided fourth in the Illinois All-Age Stakes, first in the Illinois Champion Stake, and third in the United States All-Age Stake.

Lady's record almost equals that of her illustrious sister, she having won third, Pacific Northwest Derby, 1900; first, P. C. F. T. Club's Derby, 1901; second, P. C. F. T. Club's All Age, 1901; third, Pacific Northwest All Age, 1902; first, P. C. F. T. Club's Members' Stake, 1903; first Pacific Northwest All Age, 1903; and first, P. C. F. T. Club's All Age, 1904, when she ran in sensational form and proved herself one of the greatest performers ever cast off in Coast trials.

Kilgarif will be remembered as the star performer in the P. C. F. T. Club's Derby, 1903, which he won in most decided fashion; also as the winner of third in the Pacific Northwest All Age when it was conceded by competent judges that he should have been placed second to Lady. His last win was scored in the P. C. F. T. Club's All Age, 1904 Stake, when he won second to Lady under conditions which proved conclusively his great bird-finding qualtites.

McCloud Boy was the winner of third in the P. C. F. T Club's All Age-Stake, 1904, and is a meritorious performer who has not as yet had opportunities to show all there is in him. He is a dog of the decided type, and with more experience should be able to take the measure of some of the best dogs in America.

Keepsake was the winner of third in the P. C. F. T. Club's Derby, 1904, and is one of the most diminutive setters placed in field-trial competition. Her showing in that stake, outside of bird work in which she ex-

hibited a lack of experience, presages a successful career, and it is expected that she will follow in the footsteps of her noted dam.

Harry H., whom we mention as a possibility, is a dark horse who when thoroughly under control is liable to surprise our fanciers. He possesses great stamina and speed and range, which places him in the first flight in these respects, and with a slight improvement in other qualities should have a splendid future before him. Harry H., as well as Ch. Peach Blossom, McCloud Boy and Keepsake, is owned by Mr. W. W. Van Arsdale of San Francisco, while Lady and Kilgarif are the property of Mr. J. E. Terry of Sacramento. The latter proposes to send with Mr. Coutts a number of derby entries by Kilgarif out of Iona S. and by Orion out of Lady. In addition it is likely that other good propspects owned by California sportsmen, notably a couple of Mr. J. W. Flynn's pointers, will find a place on Mr. Coutts's string, and help to uphold the honor of California.

NORTHERN HUNTRESS' PEDIGREE.

By request of a Petaluma subscriber, we gladly print the following brief pedigree of Mr. Tiedeman's excellent dog:

Northern Huntress is by Ch. Joe Cummings-Mecca II. Joe Cummings is by Antonio-Picciola. Mecca II is by Almo-Mecca.

INTESTINAL PARASITES.

THE CLAIM has been made that at least fifty per cent of the mortality among young puppies is due to the ravages of worms. This of course is a slight distorting of facts, but nevertheless the statement bears considerable truth on its face as worms are the primary cause of many diseases which tend to make the mortality among unmatured stock so great.

Vermifuge should be administered to puppies as soon as they are weaned, and the dosing should be repeated at intervals until the youngsters have reached the age of six months, when the ravages of stomach or round worms generally end. Of course this does not mean that they are immune from the presence of intestinal parasites, as the tænia, or tape-worm, manifests itself about this time, or even sooner, and is likely to be harbored during the entire life of the dog.

The round or stomach worm is usually from four to six inches long, less than one-eighth of an inch in thickness, and is perfectly round and smooth, its extremities tapering to a shorp point. It somewhat resembles a section of vermicelli, and when expelled in considerable numbers bears a still more striking likeness to the prepared product of the paste factory. Just how and when these pests enter the body in their embryo form is hard to determine, but I have never failed to find them in puppies ranging from six weeks to three months of age, and it seems that no matter what precautions are observed they are bound to be present in varying numbers. They range about in the intestines and occasionally visit the stomach when their unwelcome presence causes the puppy to vomit, and they are often expelled in this way.

Knowing that they are sure to be present in puppies of weaning age, I make it an invariable rule to "worm" the latter as soon as they are taken from the dam, and while many of the prepared remedies answer every purpose I have pinned my faith to Ashmont's concoction of worm expellants, which is admirable in its celerity and effectiveness, as well as the safety which attends its use. With young puppies between six and ten weeks of age the employment of a purgative to be given in advance of the vermifuge is unnecessary. Simply allow them to fast from six to eight in the evening until six or eight in the morning, when the dose may be given and food withheld for two hours so that it may have time to pass from the stomach into the intestines before its effectiveness is diminished by mixture with food in the stomach. Ashmont's worm medicine No. 1 contains the following ingredients:

Wormseed oil	16 drops
Oil of turpentine	2 drops
Oil of anise	16 drops
Olive oil	3 drachms
Castor oil	4½ drachms

A teaspoonful floated in a little milk is a sufficient dose for puppies of the above age (setters and pointers), and may be used until the third month, when four grains of santonin may be added to the above mixture. A teaspoonful will be a sufficient dose until the puppy has reached the age of four months, when 1½ teaspoonfuls may be given at a dose. An eight months old puppy can take two teaspoonfuls, and a dog one year old can stand three teaspoontuls, which is the limit for matured animals of the above breeds. After puppies reach the age of six months a liberal dose of castor oil should be given one hour before the vermifuge is administered, and food should be withheld until two hours after the worm expellant is used. For toy puppies or puppies of small breeds, such as fox terriers, cocker spaniels, etc., one-quarter teaspoonful is sufficient to start with, and with the toys the increase should be not more than eight drops every three months until at maturity one teaspoonful is given. For the other small breeds, other than toys, the increase may be one-quarter teaspoonful every three months until one and one-half teaspoonfuls are given at maturity.

There are three or four species of tapeworm which infest the dog, and these vary in length from ten inches to ten feet, and are often found in such numbers that when driven forth by an expellant the dog finds it a hard matter to rid himself of the mass of worms. Owing to the fact that unless the head of the tapeworm is expelled it is capable of reproduction, even when only a few of its segments remain, it is found very difficult to thoroughly eradicate this pest, and while a mass of the segments may be passed the heads of these worms, with their suckers by which they attach themselves to the mucous membrane of the intestines still remain to reproduce and continue the ravages upon the poor dog's system.

When it is found that the above vermifuge fails to effect a thorough eradication of tapeworm fifty drops of oil of male fern may be added, and this addition to the mixture will likely have the desired effect; the dose remains the same.

Many authorities advocate the use of ground areca nut. The dose for young puppies over four months of age is one teaspoonful leveled off with a knife, and the increase should be one-half teaspoonful every two months until the fourteenth month, when it should remain at about three and one-half teaspoonfuls. The difficulty of grinding and administering this vermifuge does not commend it to many, and furthermore it must be followed by castor oil in order to be effective. The varying strength of the volatile oil contained in the areca nuts makes it impossible to administer in equable doses, and its action on the hearts of young puppies makes its use very dangerous.

Another mixture which will be found efficacious in expelling tapeworms is the following:

Olive oil	1½ ozs.
Castor oil	1½ ozs
Oil of male fern	1 oz
Turpentine	15 drops

The dose is an even teaspoonful for setters and pointers over six months of age, which may be increased to a tablespoonful when the puppy reaches the age of thirteen months.

Turpentine, kamala, santonine, koosso, pink root and senna and various other worm expellants have

their advocates, but the above remedies will be found harmless and efficacious.

It is well to state that in all cases where the vermifuge gives no results, and the worms are known to be present, a second dose may be given three hours after the first has been administered.

Worms have such a decidedly deleterious effect upon the dog's system that it behooves every fancier to eradicate them when their presence in harmful numbers is indicated. In young puppies they are a potent cause of rickets or mal-nutritious fits, paralysis and other diseases.

In matured animals a lack of animation and strength, dull harsh coat, capricious appetite, offensive breath and irregularity of the bowels are very often due to the presence of worms, and so long as they are present in considerable numbers the dog's health is bound to suffer.

ADLETS

Advertisements of subscribers of For Sale, Wants, Exchanges, etc., will be inserted under this head at 15 cents per line for first issue, and 10 cents per line for each issue thereafter. Eight words or fraction thereof measured as a line.

Cash must be sent with order to insure insertion.

FOR SALE—Game Heads, Fur Rugs, at low prices. Prof. Gus Stainsky, Taxidermist of world-wide reputation, Colorado Springs, Colo.

* * *

WANTED—Every sportsman to know that in Montana we have plenty of big game for all. Elk, deer, sheep, bear, and a variety of small game. Can begin hunting second day out. Address A. R. Hague, guide, Fridley, Mont.

* * *

KEEP YOUR DOGS in good health. Use Eureka Dog Remedies—chocolate-coated tablets—worms, distemper, etc., 25 cents. Circular on diseases mailed free. Roach Manufacturing Company, 391 Kosciusko street, Brooklyn, N. Y.

* * *

EXCHANGE—Foclón Soto U., apartado 106, Bogota, Colombia, postage stamps and picture post cards collector. Exchange desired. Send me your duplicates; I will send you same value in Colombian stamps.

* * *

WANTED—Persons who would like to have a summer cottage within easy reach of San Francisco and located on good hunting and fishing ground; also sportsmen who might desire to form a club and own their hunting grounds at a very small cost. Fine trout streams in abundance. I refer by permission to Editor WESTERN FIELD. For information write to Jas. L. Skiffington, Melburne, Mendocino Co., Cal.

* * *

FOR SALE—Orange and white English Setter Bitch Puppy, by Tony's Hope (Ch. Antonio-Nelly Hope), out of Princess Gleam (Noble Gleam-Lady Windem). H. L. BETTEN, Alameda, Cal.

* * *

FOR SALE—Several trained, untrained, and partly trained setters and pointers. Dogs and bitches. High class and finely bred. CALIFORNIA KENNELS, Del Rey, Cal.

* * *

WANTED—Combination billiard and pool table. Will trade fine rifles, shotgun, camera, etc., for same, or pay cash if cheap and in good condition. Address "Table," WESTERN FIELD Office.

FOR SALE—Eastman-Walker 5x7 view camera; reversible back, rising front, double swing, cost $32.00; Gray's No. 4 Periscope lens, cost $15.00; three double plate-holders, cost $3.00; tripod and head, cost $3.50; Low Kazoo shutter, No. 1, cost, $6.00; canvas carrying case, cost $1.50; total, $61.00; all but case in excellent condition; sell for $23.00 cash. Arthur Inkersley, 508 Montgomery street, San Francisco.

* * *

FOR SALE—Finest Columbia Graphophone and one hundred selected records. New and perfect. Will take just half price for same. Address "Phone," WESTERN FIELD Office.

* * *

FOR SALE—Fine Eastman Folding Kodak, 5x7, complete and in fine condition. Developing and printing outfit, chemicals, etc., cheap. Refer to Editor WESTERN FIELD.

* * *

TO SPORTSWOMEN.—There are many ladies who would gladly improve an opportunity to kill bear, cougar and deer if the same could be easily and *safely* done. I am in a position to guarantee any sportswoman a shot at such large game, under conditions that will assure success and absolute safety, for a very moderate compensation. If interested, apply to the Editor of WESTERN FIELD, to whom I am permitted to refer. "HUNTER."

* * *

WANTED—Obsidian Spears and Knives, 3 to 10 inches; elegant tiny arrowheads of Oregon, Washington and California and all Western States found in the soil; Indian Baskets, Bead Work, Alaska Etchings on old ivory ornaments, fine Crystallized Minerals, Curios of the great West and Northwest, including Alaska. Write, describing what you have, with prices, to me, a dealer. L. W. STILWELL, Deadwood, S. D., Wholesaler of Bead Work and Indian Curios. To curio dealers, catalogue with prices.

* * *

FOR SALE—A fine Bullard single-shot target rifle, Swiss butt, Vernier sights, etc., extra fancy stock, embossed action. Recently recut by Geo. Schoyen from .35 to .38 caliber. Tools, etc., complete. Cheap for cash or might trade. Want a good duck boat, decoys, etc. "Gunner," care WESTERN FIELD Office.

* * *

WANTED—To correspond with any parties who contemplate a hunting, fishing or camping trip in the mountains or a camping trip through the Yellowstone National Park. My facilities for outfitting parties are of the best and my long residence, experience and thorough knowledge of the country makes the chances of a pleasant and successful trip assured. References furnished on request. S. N. Leek, Jackson, Wyo.

* * *

FOR SALE—Best grade Mannlicher repeating rifle, 8 m m caliber, all improvements, fitted with fine telescope sights, improved hair (double) trigger. Perfect condition; killing range two (2) miles. Cheap for cash. Will accept Luger or German model Colt's automatic pistol in part payment. "Mannlicher," care WESTERN FIELD Office.

* * *

FOR SALE—Highest grade Sharp-Borchardt target rifle, extra fine pistol grip stock, full target sights (windguage, level, vernier, etc.), just recut by Geo. Schoyen and fitted with false muzzle, special bullet mould and starter, lubrication pump, etc., complete. In heavy sole leather case. Never fired except for target proof. Phenomenal shooter. Just right in dimensions. Cost $165. Have no use for it and will sell cheap or exchange for approved value. Can be seen at WESTERN FIELD Office.

* * *

FOR SALE—Two fine high grade rifle telescope sights, made by Sidle, Phila., to order. One is 5-8 and the other 7-8 inch diameter. All latest improvements, largest field, perfectly flat, unexcelled definition and illumination, both with extra adjustable eye pieces and brand new. Mountings complete. Sell cheap or trade for best offer. What have you? F. H. M., care WESTERN FIELD.

ANTIQUE SPANISH TABLE

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Italian marble bust by "Michele Sansebastiano," Genoa, Italy.

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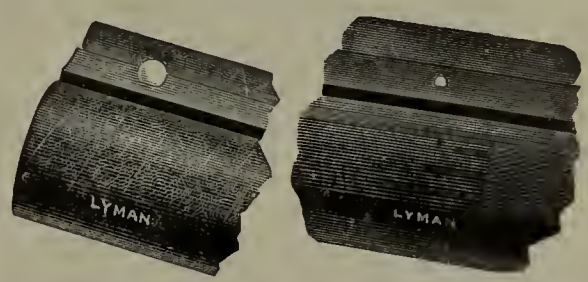

Front Sight *Rear Sight*

FOR TRAP AND FIELD WORK

Send for our new 96 page catalogue of sights for target and hunting rifles and shotguns

The Lyman Gun Sight Corporation
MIDDLEFIELD, CT.

TRADE TOPICS

MAKES NEW CONNECTION.

The Baker Gun Forging Company of Batavia inform us that they have secured the services of Mr. W. H. More for their sales department. Mr. More was formerly with the Syracuse Arms Company in a like capacity and is well known to the trade.

* * *

AN ELEGANT PRODUCT.

The new Lefever guns now being furnished in both single and double trigger models by D. M. Fefever Sons & Co. are meeting with a deserved popularity on this coast. They are splendid shooting, fine looking weapons and are giving unqualified satisfaction in the hard usage to which they are being ruthlessly put by our duck-shooting fraternity, who seem determined to "try them out" to the last degree. We are hearing nothing but good reports of them from the many sportsmen who have them in hand and they rank upon this Coast in the front line of favorites. The new catalogue issued by this company is now ready for gratuitous distribution and we advise its perusal before definitely settling on your next purchase of a gun.

* * *

OF INTEREST TO RIFLEMEN.

We are indebted to the courtesy of Mr. C. M. Daiss, secretary of the Columbia Pistol and Rifle Club of this city, for a copy of his club's twelfth annual programme, a pamphlet that should be in the hands of every lover of the grooved tubes. The club's range is at Harbor View, the shooting days are the first and third Sundays of each month and the officers for 1904 are: A. H. Cady, president; A. H. Pape, vice-president; C. M. Daiss, secretary; Dr. H. W. Hunsaker, treasurer; F. Knostman, shooting master; Dr. J. F. Twist, assistant shooting master; G. Mannel, W. G. Hoffman, E. Hovey, board of trustees. For further particulars address C. M. Daiss, 707 Market street, San Francisco.

* * *

BETTER READ THESE.

Two booklets of peculiar interest to sportsmen are now ready for gratuitous distribution by the Winchester Rep. Arms Co. They are entitled respectively, "Testing of Arms and Ammunition," and "The Trap Shooter's Guide."

The former is a very beautifully illustrated booklet depicting in a most interesting way the manifold processes through which Winchester guns must go before they are deemed absolutely fit for the sportsmen's use. Every user of sporting weapons will be benefited to a large degree by a careful reading of this pamphlet, as many facts relating to the manufacturing of sporting firearms are given in small compass but most interesting style.

The Trap Shooter's Guide is "chock full" of interesting data of peculiar interest and value to trap-shooters. The winning loads used by all the eminent American trap-shooters are given in extended detail. Trap-shooting rules of all kinds, the various systems of dividing purses used in different sections, etc., etc., are combined here in a handy and beautifully arranged form. Both booklets are now ready for distribution, and we earnestly advise all sportsmen to send for copies, addressing A. Muller, Pacific Coast Branch of the Winchester Arms Co., this city.

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A CHANGE OF BASE.

The Charles H. Newell Co., long and favorably known to all local sportsmen, have been compelled, owing to an enormous increase in their business, to move to more commodious quarters at 1582 Market street (corner Larkin), where they will be pleased to meet old and new patrons. Everything that skill can make and money can buy in the way of fishing tackle is on exhibit at their new store. Many exclusive patterns of flies, etc., tied specially for use in California waters, together with other choice and select offerings of all kinds of sporting paraphernalia, are to be found in their elegant stock, and it will repay all anglers in particular to call and look it over when contemplating the replenishment of their coming season's supply of tackle.

* * *

For the benefit of our readers who are interested in rifle shooting, and more particularly in long-range and military rifle shooting, we once more wish to call attention to Dr. W. G. Hudson's book, "Modern Rifle Shooting from the American Standpoint." Probably no one in the United Stataes writes with more authority tban Dr. Hudson, and yet his writing is so straightforward and readable that it holds one like a good novel. Military rifle shooting is creating a furore all over the country, and in many States the National Guard State Rifle Associations are throwing open their ranges to civilians, while at present a bill is pending in Congress authorizing the War Department to sell the .30-40 (Krag) rifle to clubs affiliated with the National Rifle Association. No more laudable departure can be made; for it is by encouraging civilian rifle clubs that this broad land of ours will be made what she should be, a nation of expert riflemen.

To become an expert rifle shot requires time and experience and many matters which the novice would take years to acquire are arranged in a most readable way in "Modern Rifle Shooting." Besides this, the book contains formulas of value to all riflemen, the nitro cleaner formula alone being of great value to all users of nitro powders, and the table of wind allowances, here worked out for the first time, is alone worth the small price of the book.

As we thoroughly believe that the peace and prosperity of this country are conserved by encouraging long-range rifle practice, we have decided, both for business and patriotic purposes, to offer the above work to our subscribers at the regular price, $1.00.

* * *

B. H. WORTHEN BEATS W. R. CROSBY.

W. R. Crosby, one of the champion shots of the world, was treated to a surprise recently at Atlanta, Ga.

Despite a heavy wind, amounting almost to a gale, Mr. Crosby broke 94 out of 100 clay birds, a remarkable record under such adverse circumstances, and yet he was beaten by one bird, as Mr. Worthen smashed 95 of the clay flyers.

The battle between these two was a right royal one, and Mr. Worthen and the Parker gun achieved a triumph of no mean merit. Mr. Worthen used, as he always does, the Old Reliable Parker Gun.

* * *

SOMETHING YOU NEED.

A good oiler is an indispensable convenience in every sportsman's kit. Reels, guns, fishing tackle, etc., are always the better for a little judicious lubrication, which is too often omitted simply hecause most oilers are greasy and leaky and therefore tabooed by the guild. All these objections have been overcome in the excellent celluloid oiler manufactured by the J. Austin Dunn Specialty Co., whose advertisement appears elsewhere in this issue, and we cordially recommend a trial of it by our brother sportsmen. It is oil-tight and will not sweat, so is always clean and safe to carry. At the price, we deem it one of the best sportsmen's tricks yet produced and predict that it will meet with a large adoption.

* * *

A WRONG ADDRESS.

By a curious inadvertence in these columns last month the types were made to say that the address of the W. H. Mullins Boat Company was Salem, Ore. Everybody knows that the offices and factory of this celebrated concern is at Salem. Ohio, so the discrepancy was not very material. We don't know but what we are glad it happened, as it gives us an opportunity to again refer to this elegant line of boats.

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CLUB EMBLEMS

A POPULAR LOAN.

The American Graphophone Company, of which the Columbia Phonograph Company is the sole sales agent, recently offered to its stockholders $500,000 of 6 per cent. coupon notes running from one to five years. The offer was not only subscribed for in full, but substantially oversubscribed.

If anything were needed to demonstrate the faith of the stockholders in the integrity of the management of the business, the avidity with which these notes have been taken would be quite sufficient.

The business has increased so tremendously of late, that more capital was needed, despite the fact that the earnings of the Company are largely in excess of one half million dollars per annum, with a prospect of their reaching the one million mark in the course of another year or two. In the meantime, the number of sales depots is increasing every month and the plant at Bridgeport is being extended by additional construction and new machinery added as rapidly as space can be provided for it.

* * *

THE ITHACA COMPANY INCORPORATES.

The Ithaca Gun Co., which has been conducted as a copartnership for the past twenty-two years, has recently been incorporated under the laws of the State of New York.

The officers are Geo. Livermore, president; L. P. Smith, vice-president; C. H. Smith, secretary; Paul Smith Livermore, treasurer.

The management remains unchanged and the incorporation is the result of an increase in business from year to year until the Ithaca Gun Co. became too large to be run under a copartnership. By the new arrangement it will be possible to put into the Ithaca product even a greater degree of values than that which has already made "Ithacas" famous the world over, and we bespeak a full and prompt recognition of that fact by sportsmen who have long appreciated the excellence of these celebrated guns.

birds; M. J. Iverson scored 50 straight in both the Medal and Consolation matches, 25 targets for each match. Clarence Naumann, M. O. Feudner and M. J. Iverson made straights at 25 targets, and the following made straights at 15 targets: "Wilson," C. Naumann, H. Jacobson. All the above gentlemen used U. M. C. "Magic" or "Acme" shells.

In the Union Gun Club shoot held Sunday, March 13, 1904, the only straight run of 25 in the Club match was made by J. C. F. Hall of Pinole, Cal.

In the Medal event the possible 25 was made by the following: Thos. R. Barney, E. L. Gamble and Dr. McConnell, of San Francisco; C. Stanley Fish of Martinez, W. Hanson of Pinole.

In a five-pair double and ten-single, Clarence Naumann scored straight on doubles and missed one in single birds.

All the above scores were likewise made with U. M. C. shells.

At the second meeting of the California Wing Club a live-bird shoot was held at Ingleside, on April 3, twenty-six shooters contesting. Out of the 26 contestants, 24 shot U. M. C. shells. In the regular Club shoot the only two contestants making straight scores were C. Sylvester and C. C. Naumann, both shooting the Union Metallic Cartridge Company's "Magic" shells.

* * *

FULL OF MEAT.

The Ideal Mfg. Co. of New Haven, Conn., are issuing a little booklet entitled "Instructions on Loading and Reloading .30-40 Krag and Other High-Power Rifles," which should be in the hands of every rifleman in this section. It is, in reality, a general hand-book on rifle cartridges and their proper making that will interest every lover of the grooved tube, no matter what be his choice or use of calibers and makes. It will be sent free on request to the company at the above address.

UNCLE SAM'S ARMY.

If the United States should be suddenly called into war, the best-equipped army of marksmen in the world would be ready for service at short notice. This condition of affairs has not been brought about by any studied effort on the part of the War Department, but rather through the inclination nowadays of "teaching the young idea how to shoot." Boys all over the country have been educated in the use of firearms through the persistent efforts of the Stevens Arms & Tool Co., Chicopee Falls, Mass., and it is a common thing nowadays to hear the "ping" of the rifle or the crack of the shotgun on farms throughout the United States.

The farmer has come to realize that a "Stevens" rifle in the hands of his son is a safe, sure way of ridding the surrounding country of squirrels, woodchucks and other crop-destroying animals, and at the same time furnishes the boy with a lot of harmless amusement that is instructive.

* * *

SOME U. M. C. POINTERS.

The Golden Gate Gun Club shoot was held on Sunday, March 24, 1904, on the grounds of the San Francisco Trap Shooting Association at Ingleside. In the Medal event at 25 targets, eight men missed but 18

"MODERN BREAKING."

A treatise on the rearing, handling and breaking of setters and pointers, by Wm. A. Bruette, is one of those little volumes which one lays down with a sense of having been fully repaid by its perusal. Short, concise, and full of practical hard sense, it stands in sharp relief against the contrasting foil of other verbose and stereotyped effusions on dog-breaking. It will be eagerly welcomed by the layman who wants some *vade mecum* that he can understand and whose rules and suggestions he can personally apply in the education of his pets. In a word, it should be in every sportsman's hands and given the attentive reading it deserves.

* * *

DEER HUNTERS

the world over will welcome the new and revised edition of Theodore S. Van Dyke's valuable book on stalking, *The Still Hunter*, just issued by the Macmillan Company of New York. The book has been carefully revised by the author and is now graced by many beautiful illustrations from the pencils and brushes of both the author and Carl Rungius of big game celebrity. It approximates to tautology to praise Van Dyke's masterpiece. Every practical deer-hunter has lived out all the author's described experiences, and

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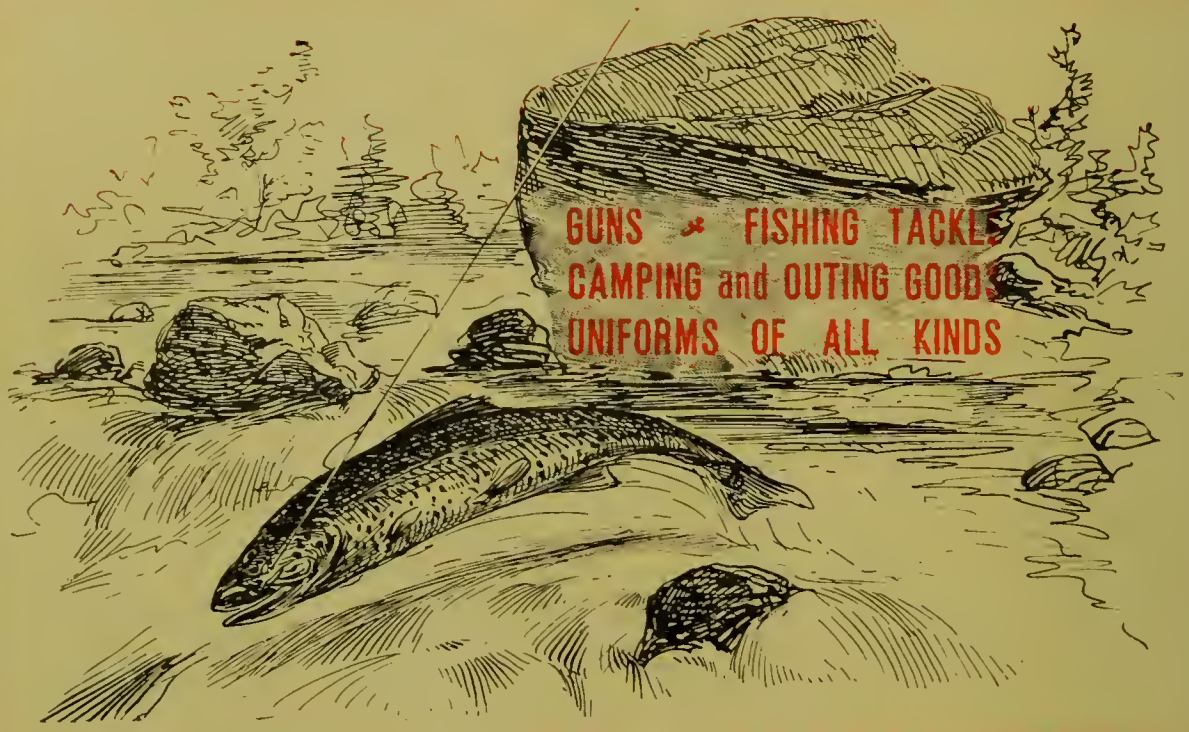

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Painted for WESTERN FIELD
by H. D. Gremke.

"THE ENRAGED BRUTE WAS FIGHTING FURIOUSLY."

(See "A Prospector's Experience," page 333.)

WESTERN FIELD.

VOL. 4. JUNE, 1904. NO. 5.

A PROSPECTOR'S EXPERIENCE IN ARIZONA.

By ELESA M. GREMKE.

AT THE base of White Sugar Loaf Moutain, in Arizona, yawns Gap Cañon. Down in its purple depths stretches away a dense forest that covers its floor and flanks in broken file up its rugged sides, the tall pines crowding their way through huge boulders far up to the sun-kissed ridge. Above the cañon the illimitable blue flows like an azure river defining the sharp contour of its jagged walls. Here and there cool streams born of the winter's storms meander musically on their way through the tall, shady pines, with frisky, elusive trout darting through the swirls of dazzling green where the gentle deer come early and late to drink.

No sound invades the cañon save the cry of its feathered denizens, save when the melancholy roar of some lonely lion on yonder mountain side trembles on the midnight air and floats in dismal tones across the gorge, while its prowling mate crouches in sinful poise with glaring eyes upon its helpless prey, or countless other friends of the furry brotherhood hold high carnival in these rugged solitudes.

Late in the sixties, Julius Seick of Los Angeles began prospecting in this lonely region, isolated from the din and noise of the world's busy mart, with no companion save a faithful dog. Game was plentiful, for seldom were these haunts marred by the human footfall save when hostile Indians crossed with murderous tread its sacred precincts to maraud the village below. It was, therefore, not a difficult task to keep the larder well supplied with wild meat or to keep his cabin floor covered with soft, furry rugs.

One morning Julius Seick started at daybreak with his gun and dog. Slowly he wended his way up the cañon. The air was cool and crisp, laden with the sweet aroma of the pines. Away above him lay the summit of the mountain, and daybreak was kindling on its highest peak, while in the cañon the belated shadows of dawn were still lingering. The soft, green pines clustered here and there against the cañon walls, swaying gently in the morning breeze, while the deep blue dome arched above them, completing a panorama of exquisite loveliness. In a tree above, two squirrels were quarreling over a pine nut, and in the upper air a hawk, with its pinions spread, sailed motionless through space.

Awed by the beauty of the surroundings, the hunter climbed in silence, communing with nature. His reverie was suddenly interrupted by the noise of rustling leaves, and coming back to earth he saw, just at the end of a patch of brush, the antlers of a young buck. He quickly stepped under cover and watched for the game to move into the open, which it presently did. It was a short sixty yards, and fell at his first shot. A long service in the Prussian army had not alone endowed him with good marksmanship, but also a splendid physique, which enabled him to pack his prize without much difficulty to his cabin. Fastening the hind legs together, he hung the buck upon a limb of a nearby tree.

That night he was startled out of a sound sleep by a medley of roaring, snapping, snarling and fierce, agonizing cries. He sprang from his bunk, snatched his revolver, and stole out of the cabin. The moon was slowly climbing to the zenith and sending its silver shafts through the forest gloom, affording sufficient light to enable him to locate the

cause of the disturbance. Out in an open space near the carcass a fierce battle was raging between a mountain lion and the prospector's Newfoundland dog. The enraged brute was fighting furiously and would have soon dispatched the dog had his master not appeared on the scene. Seick watched the fight anxiously while waiting for an opportunity to advance near enough to the lion without endangering his own life. The moment finally came, and placing the revolver close to the brute's head, he fired; the lion rolled over, dead, and the dog was liberated. The dog was badly wounded, but eventually recovered through the kindly care of his good master, and the hide was next morning stretched on the side of the cabin for a warning to all of his kind.

The mellow days of October had come and the soft, yellow tints were already mingling their warm tones with the ever green pines. The air was warm and clear. There was a slight breeze toying with the sere leaves as they tumbled helter-skelter into the niches and corners. Julius Seick had been chopping wood all day for the winter's supply. It was four o'clock by his watch as he sat down before his cabin door to enjoy a smoke.

The great Newfoundland dog stretched himself at his feet and soon fell into a light slumber. The thin blue smoke began rising upward in light ringlets and floated away, melting into the blue mist of the cañon. The sun's slant rays already began to lengthen out the shadows of the pines, soon to drop behind the timber-fringed ridge; while its last roseate glow lingered in dazzling splendor like an evening benediction upon the hermit's home. No sound disturbed the stillness of the cañon save the low murmur of the stream and the melancholy cooing of the wild dove, that mingled its dismal notes with the lonesome chant of the cricket.

Suddenly his attention was attracted by the shrill cry of a hawk that was soaring high above the pines. Looking dreamily in its direction, his eyes lost their indifference instantly. Far upon the ridge moving objects began to steal in and out of the timber, now disappearing through the brush, then out into the open. Nearer and nearer they drew with stealthy steps. A moment more and all indecision was at an end, for he saw it to be a band of Apache Indians who were heading toward the cañon like a pack of hounds. Seick knew too well the desperate nature of the situation, for the Indians were hostile. To lose but a few precious moments might mean torture and death.

A thousand thoughts chased each other across his fervid brain. To remain in his cabin and open fire afforded but little chance of life against that mob of crafty redskins. Already they were within shooting range, and not another instant could he afford to lose. He knew that his only hope lay in reaching a cave which was located under the brow of a huge ledge of rocks several hundred yards away from the cabin and across the cañon. Without further delay he sprang to his feet, seized his gun and dropped down the declivity, followed by his faithful dog. He knew where the cave lay, could it be reached. The moments pressed, and his heart grew more and more sick as he realized their near approach. One more open space to cross and he would reach the mouth of the cave! Summoning all his force, he increased his speed, and breathless he entered its gloomy confines.

As he slid along its slimy floor, seeking its remotest recess, great toads croaked and sprang from their hiding places, while innumerable bats fluttered through the damp air. To add to his horror, a rattlesnake gave its uncanny warning on his right. As his eyes had not yet become accustomed to the darkness, he struck a match and was soon enabled by its pale light to discover the reptile's glistening eyes just within a gun's reach. A well-aimed blow with the butt dispatched the viper and Seick gave a heartfelt gasp of relief.

By this time the Indians had reached his cabin and their whooping vibrated and echoed across the cañon. The dog emitted an occasional low growl as he lay crouched close to his master's feet, but Seick lay thankfully silent. Finally a deathlike stillness pervaded the air and the Indians seemed to have left the premises. This profound silence troubled Seick exceedingly for he knew not whether to ascribe it to their disappearance or to their artifice.

Then followed the lonely vigil through the night. The continual fluttering of the bats as they darted against his head kept sleep at bay, and the impenetrable gloom of the cave added to its horror. Slowly the hours dragged on and finally the gray dawn stole

Painted for Western Field by H. D. Gremke.

"SUDDENLY HIS ATTENTION WAS ATTRACTED." (SEE OPPOSITE PAGE.)

into the cave; he ventured toward its mouth, listening for a sound of the Indians, but all was still. Believing they had fled to the village below, he crawled from his hiding place and crept cautiously under cover of the brush to his cabin. Footprints of moccasins were everywhere visible; but strange to say, the cabin remained unmolested.

IN SUNNY CALIFORNIA.

WHEN the summer steals upon us,
And "Old Sol," maliciously,
Casts his melting glances downward,
We forsake the town, and flee.
Flee from all the rush and hurry
And the busy hum of trade,
To where mighty crags and forests
Spread their cool and grateful shade.

Guarded by those ancient giants
For a time we're resting there,
Safely hidden from all trouble,
And from sorrow, and from care.
In this tent, rolled up in blankets,
Though the frost elves gnash and foam,
We will slumber just as soundly
As the millionaires at home.

Seated by our cozy camp-stove,
Eating flapjacks piping hot,
While the fragrance of old Mocha
Rises from the coffee-pot,
Who would change with pampered darlings
In a stuffy breakfast-room?
Who would trade this morning glory
For the city's murky gloom?

We can hear the grouse-cock drumming
As he serenades his mate,
And the mountain quail's "Good morning,"
To his neighbor, at the gate;
While below, his valley cousins,
Clustered at some little rill,
Whistle shrill their constant warning:
"Keep right still! Oh, keep right still!"

As the God of Day advances
And the chaliced dew-draught quaffs,
Smilingly he treads the welkin,
While Dame Nature gently laughs;
Then, from tiniest shrub beneath us,
To the loftiest peak above,
Rises one grand song of welcome
In the melody we love.

Never were the operas written,
Nor composed the symphonies
That compare with the sweet music
Of the birds, and flowers, and trees;
Never has an artist genius
Fashioned, e'en with brush of gold,
Pictures like these summer mornings
To our raptured eyes unfold.

So we'll pass the heated season,
Loafing, hunting, tramping 'round
On the hillsides, in the cañons,
Where the game and fish abound;
Live the lives which we have longed for,
Breathe pure air, become new men,
Strengthed anew in brain and body
When we stoop to earth again.

As we journey down the mountain,
First in sunshine, then in shade,
Where the road sweeps round a headland,
Or dips in a leafy glade,
We can see the squirrels working,
Hear the bluejay's catlike call,
As he and his brother robbers
Store their acorns for the fall.

Through the foothills to the vineyards
Where the grapes are hanging ripe,
In festoons of royal purple,
Pyramids of amber white;
Homeward o'er the fruit-edged highway
To'ards the now most welcome town,
Which we enter in the evening
As the autumn sun slips down.

—*Carlton McLaughlin.*

THE VOICE OF NATURE.

By Rev. George H. Bennett.

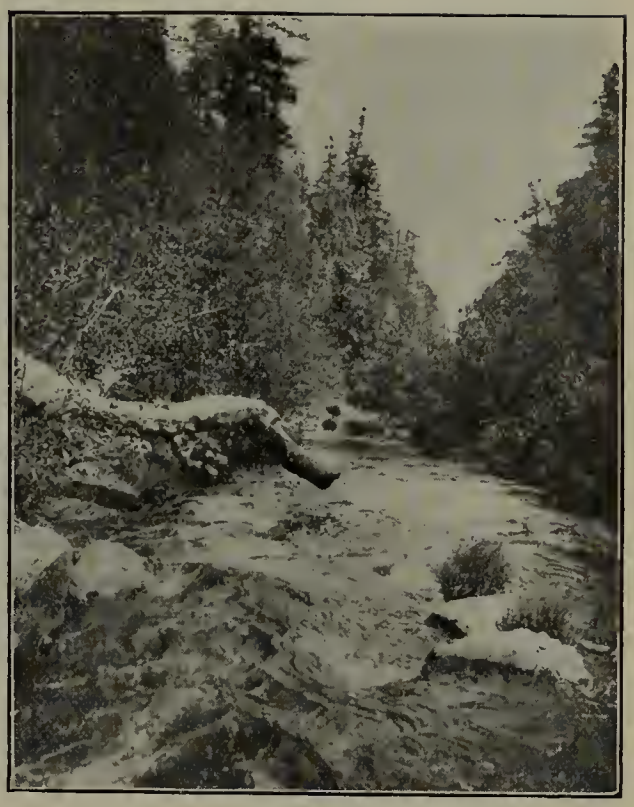
WILLIAM CULLEN BRYANT lived close to Nature's heart, and his great soul was keenly responsive to all her voices. Inexpressibly sweet to the soul attuned to Nature's anthem is the sighing of the wind in the treetops, the twittering of the squirrel, and the glad, free note of the thrush, the lark and the robin. How eloquent and touching are the words of the bard:

"To him, who, in the love of Nature, holds
Communion with her visible forms, she speaks
A various language: for his gayer hours
She has a voice of gladness, and a smile
And eloquence of beauty; and she glides
Into his darker musings with a mild
And gentle sympathy, that steals away
Their sharpness ere he is aware."

Pity the soul that does not love the fields and woods and far-off mountain crests; pity the heart that remains unmoved by their calm and stately grandeur and that feels no thrill at their varied tints and ever-changing light, for such a soul hears not that voice of gladness, nor feels that gentle sympathy.

How refreshing it is to steal away for a time from the problems and perplexities of life, over the green meadows and into the somber woods. How restful to the eye are the tints of the forest, field and distant cloudland. The fragrance of the woods, their majestic calmness, and their wealth of ferns and mosses and charming wildflowers casts a hallowed spell upon the soul. Who can note the unfolding leaf and bursting bud, the rollicking denizens of the woods, and listen to the trilling songster without thanking God for the trees and birds and the flowers!

One of the sweetest memories of my childhood is the early-morning song of a robin red-breast. He perched in the topmost twigs of a tall sycamore opposite my window each morning, and poured out his soul in melody just as the light was breaking. That gentle melody filled my child-heart with rapture in those moments between wakefulness and the land of dreams. Surely these are inspired minstrels which announce "the day-spring from on high," and welcome the morning. How sweet were those hours of childhood,



ONE OF THE VOICES.

spent in the meadows musing among the clover-blossoms, and listening to the hum of the bee as "he wheeled his droning flight." There was melody then even in the merry, rippling voices of the frogs, as, wafted from afar, they seemed a long continued solo. How soothing to tired nerves in maturer years are Nature's lullabies!

But there are boys and some so-called men who wander forth into forest and field with no higher impulse than to slay every wild and harmless creature. It is the impulse of a rude and brutal nature. It is incipient savagery. The Department of Agriculture, after extended investigation, makes an interesting report. The craws of many of our common birds were examined. Bluebird nestlings had eaten beetles, caterpillars, grasshoppers and snails; woodpeckers had eaten spiders, ants, beetles and wild cherries; kingbird nestlings had eaten spiders, flies, rose beetles, grasshoppers and drones; the martins had eaten dragon flies, butterflies, moths, flies and grasshoppers; and the robin, grosbeak, tan-

ager, lark, blackbird, sparrow-hawk and owl ninety-one had eaten mice, and only one had eaten poultry. Yet the boys continue their persecution and men kill the birds. These feath- are all shown to be the friend of man. Two hundred and twenty-five screech-owls were examined; one hundred had eaten insects, ered friends ought rather to be protected and loved for their sweet songs, their cheery presence and beneficent work. The youth should form a friendship for the wild and harmless creatures and should know them all by name. It will tend to refine a harsh and cruel disposition, quicken human sympathy, and broaden the vision of manhood.

Yes, Nature speaks to the soul that is responsive in a language all her own, and fills the soul with joy unspeakable. Through all her kingdom swells a melody and flows a harmonious song—an anthem which uplifts the heart with joy unspeakable. Through all gloomy forest, the stately river, the stupendous cliff, the white-sailed cloud all wield upon the soul their mesmeric spell.

> "The river flowed wide and stilly,
> And the voice of the crooning deep,
> Lulled even the dreaming lily
> To a yet more charmed sleep.
>
> "The shadows deepened and darkened,
> And the river's rhythmic roll,
> As I hearkened, and mused, and hearkened,
> Sank into my very soul."

Never will be forgotten my first night in the vast and lonely mountains. The full moon had risen and the landscape was flooded with her silvery beams. We were encamped in a romantic spot on a lofty ridge. A mighty mountain stretched out before us, clad in a broken forest, and flecked with light. It lay like a lion in repose. No living footfall disturbed the mighty solitude. The silence seemed absolute and eternal. How pathetic is loneliness, but how majestic is solitude! The majesty, the mystery, the antiquity of the mountains—once under their mesmeric spell, they never lose their fascination. But the mountain, slumbering in all its majesty and mystery, told me of human insignificance and of God's almightiness. Peaceful were the dreamy hours of night and charming was the morning light after such hours of meditation, when

> "The orchestra of night withdraws
> Its minor music from the ear;
> The melancholy owl, and sad-
> Voiced whippoorwill their sorrows cease,
> And all the lonely sounds of night."

Who is not refreshed by the language of the mountains, the voice of the sea, and the breathings of the stilly night? Who does not enjoy companionship with the grand old trees and the towering crags? If these mute but inspiring sentinels of epochs past could only tell their story, what wonders would they unfold of Nature's chemistry, and reminiscences relate of long gone years. The imperishable elements in the giant trees suggest to us a springtime which shall be eter-

STEALING AWAY FROM LIFE'S PERPLEXITIES.

nal, and the hoary rocks confirm their testimony.

"Day unto day uttereth speech," said the Psalmist, "and night unto night showeth knowledge." The soul delights in the beauties of the day; well may it revel in the glories of the starry night. With upturned face, on a starry night, note the twinkling of those beacons of infinitude. As the gaze sweeps the sky, how like the fingering of the celestial keyboard is the twinkling of the stars. And through the soul echoes a melody, as when "the morning stars sang together, and all the sons of God shouted for joy." The heavenly keyboard of twinkling light seems to find response in the laughing brooks and sobbing winds, the minor notes of night, the booming sea, and in the deep-voiced thunder.

Surely full of meaning are all the expressions of her face, and in the voices of Nature should the soul find solace and inspiration, be filled with gladness and with awe.

NATURE'S TEMPLE.

THE house where I worship—out under the sky—
Its steeples, the mountains that tower on high;
Its aisles, the green lanes where the fair sunlight gleams;
Its songs are the songs of the birds and the streams.

The prayers from my soul that in rapture ascend,
With the scent of the woods and the green hillsides blend;
And the music that rises from gorge and from dell
Weaves deep in my heart the sweet peace of its spell.

The power I note manifest everywhere,
Is aglow in the brook and the scent-laden air,
In the woods and the fields, in the grass-covered sod,
In the broad ways of nature—the temple of God.

—*Harry T. Fee.*

TROLLING WITH THE ROD IN SHALLOW WATER ON LAKE TAHOE.

By Archibald Treat.

HAVING that regard for appetite which every healthy sportsman possesses, and with visions before me of fish in plenty, I sent from Lake Tahoe last summer an enthusiastic note to the editor of Western Field, asking him to send me his recipe for fish chowder. I ventured the information in my communication that I had that very day seen two fine specimens of the *Salmo mykiss*, caught by deep trolling at Sandy Harbor, and that they weighed about nine and nine and a half pounds respectively. The answer I received I can best describe as a snort of derision. First, I was told that I didn't mean fish chowder; I meant clam chowder; and it was hinted strongly that the biggest clam within this fishcopædia's knowledge was at that moment somewhere on Lake Tahoe. Next I was informed that a *Salmo mykiss* never grew to weigh nine pounds; and, as a climax, that there were no fish of that variety in Lake Tahoe.

I confess that this last statement rather startled me, and thinking to prove my case, I afterward sent down a nine-and-a-half-pound fish which it was my good fortune to catch during my stay. But back came the information that my prize was a royal "silver trout," known to scientists as the *Salmo tahoensis*. However, I felt somewhat mollified when Dr. Jordan was quoted as my informant's authority, for I afterward read in his admirable work, "American Food and Game Fishes," that the *Salmo mykiss* is not found outside of the waters of Kamchatka, and that some confusion had arisen through supposing the Tahoe fish to be of this species. I had been told by no less authority than the experts of the California Fish Commission that there was only one variety of fish in Tahoe other than the indigenous white fish (excepting those which had been planted there, and that the "cut-throat," the "pogy" and the silver trout were all one, their difference in appearance resulting merely from local conditions—skipping the spawning season, and

STEAMER "TAHOE."

the like. These three names have for many years been bestowed upon the finny inhabitants of the lake by its unlearned fishermen, all ignorant of the fact that they were pulling over the gunwales of their boats from time to time the *Salmo clarkii*, the *Salmo henshawii* and the *Salmo tahoensis*—a feat which they no doubt will continue to perform whether the scientists again change their minds or stick to present appellations and distinctions.

And now having cleared the way by spreading a little borrowed learning over quite a bit of paper, I betake me to the more pleasing task of describing how best to entice the king of all the Tahoe fish, the royal silver trout.

This beautiful fish no doubt lives at great depths, for he is not known to be caught of any size in blue water. It is only when he visits comparatively shallow water in search of minnows that he can be caught at all.

At Brockway, on the northern end of Tahoe, numerous springs of hot water rise from the bed of the lake close to shore. Around these springs live schools upon schools of minnows. As they become stronger and

bolder the larger of these little fellows are apt to leave the protecting rocks near shore and swim out to deeper water, there to meet their enemy, the silver trout. The lake bottom at this place shelves gradually, and is covered with a layer of small boulders, which seen from a boat looks much like the surface of a coarsely cobbled city street.

Three years before I had heard such a wonderful tale of a morning's catch of big fish along the shoals at this northern end of the lake that I confess to having then and there in mind a few defensive grains of salt. Nor was my belief in the narrative strengthened by the result of my own efforts. Not knowing when or where to go, and notwithstanding a reasonable amount of patience, I failed to get even a strike when fishing with the rod and small spoon.

In the summer of which I write I had again tried in a desultory way to use the rod and little spinners while going to and from the fishing ground around the Point, but without success. It was not until Mr. William Kent, a California resident of Chicago, who makes this State a yearly pilgrimage, gave me visual evidence of the possibilities by bringing in fish of 9, 9½ and 3¾ pounds respectively, all caught before breakfast on a rod and little spinner, that my enthusiasm became rejuvenated.

At noontime of this same day I rowed out in a boat to see if I could photograph him trolling. By rare good fortune I came upon him at the Point playing a fish, his steel rod bent double with the strain, and a smile of satisfaction upon his face that was most good to see. I set the shutter of my lens and made ready, and as Chris Nelson, his boatman, skillfully swung into the boat a 4¾ pound beauty I pressed the trigger.

In trolling, Mr. Kent used two rods, crossing their butts and resting the ends under

PLAYING A BIG ONE.

MR. KENT AND HIS PRIZES.

each knee. In this way, in the event of a strike he could jerk hard with either hand. One of his rods was a steel salmon rod, fitted with a Kentucky reel, and about 80 or 100 rods of No. 21 Cuttyhunk line, ending with a red star spinner at the end of a 9-foot leader. The other was a borrowed affair—a cheap bamboo rod with a reel and line to match, yet it seemed to answer the purpose almost as well as its more aristocratic brother. On the following morning, July 22, I accompanied my friend, Mr. Hoyt, in a search for any fish that Mr. Kent had left uncaught. We left the wharf at half past five, and fifteen minutes afterward, when opposite the barn below the hotel, Mr. Hoyt hooked a gamey fellow which he landed after a good fight. It scaled 6¼ pounds. His line was barely out again when I heard him exclaim: "Here's more trouble!" I thought he had snagged; but he meant trouble for the fish. With a skill that was proof of long apprenticeship he brought to the net a good-sized fellow of some 4¾ pounds. He was using an Emeric spinner which Mr. Kent had given him. I was using a combination affair which I had made up from odds and ends in my book—the body of a red star spinner, the

CHRIS NELSON, A LOCAL CELEBRITY.

shank of an Emeric and the hooks of one of Wilson's spinners. My ingenuity was without reward, for I got no strikes at all. After rowing about for another hour we returned to the hotel for breakfast.

Becoming enthused over the possibilities, and having learned the when, where and how of the sport, I sent to San Francisco for a supply of spinners. These arrived August 3, and the next morning I left Brockway wharf at half past four, accompanied by Mr. Chase, a gentleman who had fished much at Cataline Island.

My outfit consisted of a two-handed eleven ounce bamboo rod, a multiplying reel, a casting line and leader of nine feet, such as one uses on ordinary streams, and a No. 4 Golcher spinner. A small No. 5 Rangeley sinker was wrapped on the line where it joined the leader.

Saving a 2-pounder we picked up at the Point we were coming home empty handed when my reel whizzed. Grabbing my rod—for I was rowing at the time and had it resting across the gunwale and under my knee—I was at first at a loss to know whether I had a fish or a rock. In a flash came a succession of violent jerks, and the line ran until in very safety I had to test the strength of my tackle. It held, and then began a fight the thrill of which is still with me. Every foot of progress was a contest. I dared not let my captive run, for my leader was both very light and very old. So it was reel in and unwind; now I would gain a few feet, and then I would lose. At the end of twenty minutes hard work my prey was near enough to let us watch him. He was then in about twenty feet of water, and slightly magnified, as fish are when seen at a depth in the lake; he looked like a champion indeed. Hardly had our curiosity been gratified than he was off for a final run and it was ten minutes more before he was brought up to the boat. This time the glint of his red and silver sides, and a tendency to show his belly, proved that he was nearly done for. Now came the anxious moment, for our landing net was altogether too small for the task. I gave him the butt, towed him toward my companion, and then gently turned him about so as to let the net take him in tail first. We missed it. Mr. Chase groaned aloud, and our victim made a feeble attempt at a run. This I checked, risking my all on that old leader. Again I worked him in the same manner, turning him in a figure 8, and this time, giving my friend more room, he scooped him and swung him into the boat. Reaching down to remove the hook I found it already out! We had landed our fish none too soon!

I now sat down so as to get the cramps out of my tired fingers and looked about me. We were hardly over 200 feet from the edge of the lake, and not more than double that distance from the hotel wharf. The fish had struck within 100 feet of the shore. Our prize was apparently lifeless when transferred to the fish car. A large chunk of ice was put in to keep him company. After breakfast I soon revived him by vigorously pouring in water from a height to give him air.

Just before the coming of the steamer we packed our prize for shipment. He measured 30 inches, and tipped the scales at an even 9½ pounds. While engaged in weighing him I learned something which may be of use to those fishermen who desire their catches to scale as much as possible. The only scales we could find were a small platform pair. We laid our fish out flat. Six

large minnows came out of his gullet. Mr. Chase, with rare presence of mind, and it seemed to me in a spirit of unusual fairness, exclaimed:

"Hold on; these belong to the fish."

So they went to swell the whole, or rather fill the hole. But, and here's the lesson, a pint of water also ran out, and this we couldn't pick up and put back. So I shall always believe myself cheated out of at least a full pound on that fish, for "A pint's a pound the world round."

For a long time I have been puzzled by the fact that in every instance where I had found small fish inside of trout the former had been taken in tail first. This summer I was told by Mr. Hunt of the fish commission that it is the habit of the larger fish to catch the smaller and turn him end for end before swallowing him. Granting this to be true, it is singular that the minnow, so far as I have observed, is without marks upon his side to indicate how he has been turned over. The query is naturally suggested: How does the trout take the spoon? From all that I have noticed he must take it as if he were seizing his prey tail first; and this is particularly noticeable when using a three-pronged hook, which is more apt to remain in the position it occupied at the first strike.

While it is possible, if the water is smooth, to row one's boat and fish at the same time, this method is more prolific of expletives than fish; for the spoon is very apt to become snagged upon the sunken rocks and

LANDING A NINE-POUNDER.

CAUGHT WITH A HAND LINE.

the tackle lost before the boat can be controlled. It is far better to have a boatman who knows the grounds handle the oars, take the fisherman back and forth over the likely places, and help him land your catch.

The silver trout is frequently caught by the professional fisherman close in shore on the deep trolling lines, using but half or even less than the usual quantity of copper wire. Sometimes a bit of wood is tied on just above the spoon to prevent the hook snagging. These fishermen also catch these fish by moonlight, using the same tactics and paraphernalia.

That Lake Tahoe is not bereft of fish is cause for wonderment to those familiar with the enormous quantities taken from its waters each season. A few years ago I obtained figures which showed that in June, July, August and September over 26 tons were shipped from the lake, and these ngures were only approximately the total. Having no funds with which to support a fish commission, the State of Nevada does not coöperate with California. This was bad enough, but last year it changed the open season from April 15 to March 15! Against this, contrast the action of California, whose fish commission last year placed in the lake 900,000 fry. Fortunately the season, so far as tourists are concerned, is short—from June to October. Our State law permits the catching of trout from April to October. The counties of Placer and El Dorado prohibits fishing on the lake until June 1. The professional fishermen evade these laws by catching their

tanks full of fish in May, and not shipping until the season opens. So palpable an evasion should be punished, and with a degree of severity which will at least prevent repetition. A few lessons would suffice.

As far back as 1878 the legislature of California passed an act for the "Preservation of Fish in the Waters of Lake Bigler," which name, by the way, the legislature never succeeded in popularizing as against that of the Indian chief Tahoe, for whom the lake has been called from time immemorial. By this law, catching fish by any other means than hook and line was prohibited, and any justice of the peace of any of the counties fronting on the lake was given jurisdiction to try the offender.

The pogy (*Salmo henshawii*) and the cutthroat (*Salmo clarkii*) spawn in the spring and summer in the shallower waters of the streams tributary to the lake. The silver trout (*Salmo tahoensis*) spawns in the lake itself. The two first-named varieties may be seen at almost any time in the spring—indeed far into the summer—spawning in the gravel beds of the small inlets to Tahoe. Some of these streams should be patrolled, for it is not uncommon in the more unfrequented parts for Indians to catch spawning fish by spear and trap and carry them away by the sackful. Nor is such practice confined to the Washoes. I regret to say that an ocasional camping party at Crystal Bay is guilty of this, the most unsportsmanlike act that man can commit—the killing of food fish during its spawning period.

There was a time upon Lake Tahoe when a boat could be anchored over a sunken tree and twenty fish be caught in an hour with drop lines. I have myself even of late years seen no less than ten boats come into one of the resorts with an average of twenty fish each for four hours of fishing. If the occupants of these boats were content with this goodly number I would have no comment; but many of them would fish again until dark, their only object being to see how many fish they could catch, mere numbers being their idea of sport. It is such persons, known to the world as "game hogs," that

BROCKWAY HOTEL AND WHARF, LAKE TAHOE.

make it necessary to have laws limiting the number of fish or game that one person may get in a day. The "game hog" is the father of the game law. Between him and the market fisherman—neither of whom cares whether there be fish in the lake to-morrow, so long as they may catch all they like to-day—the time has come when a limit law is necessary to Lake Tahoe.

The following incident may sound like fiction, but I received it upon unquestioned authority: A patron of one of the summer resorts, expressing himself as very fond of fishing on the lake, trolled it each day. His catch was in fit proportion to his energy, and was invariably shipped to San Francisco. Noting this, a curious observer looked up the business of this recipient of this unusual bounty and found him to be a commission merchant in the California Market. The thrifty sport—please note that I do not say "sportsman"—was having his fun free of expense. Think of the thrill of pleasure that ran through the place where his soul should have been each time he landed a fish, every spot upon its shining sides looking to his greedy eyes like a dollar mark.

The cut-throat and the pogy, natives to the lake; the German brown and the Mackinaw trout, the latter naturalized citizens from afar, may need the protecting hand of the legislature; but let us at once admit that the royal silver trout can take care of himself. I have watched many a boat start out with its hopeful occupant holding his rod like an ancient warrior his lance, the little weight at the end of the leader gently beating time against the wood, and the delicate spoon lightly fastened to the reel. I have seen my fellow Waltonian return, always with a fish or two in the tank. But I never could forget two things: First that I had seen peeping out from underneath the seat of the boatman a couple of reels, their copper lines glistening in the sun; and second, the captives in the tank were not silver trout. I should not, I know, betray my friends, so I will say that the foolish cut-throats that followed the big spoon of the hand line were for the boatman's dinner. It is true that he does not care for fish, having a surfeit thereof, but he will give them to the cat.

The silver trout when young is not unlike those of mankind who have not attained discretion. Curiosity and greed prove his undoing. But when he passes his third year and becomes one of the monarchs of the deep, the sportsman who brings him to net will not soon forget him. Occasionally, when landed after a hard fight, he gives a sullen splash in the tank, and as we contemplate his change of fortune we can not but both envy and pity him. He is a prisoner, and his end the broiling iron. So much for pity. But in his time he journeyed where no human eye can ever see. He was a *voyageur* of the deep, knowing the life and the death and the secrets of the lake. And now, though his end is near, man envies him his knowledge.

SWEET PEAS.

YOU ask whence came the flowers we call
Sweet peas, with their pink and blue?
Oh, ever so long ago it was,
When all the world was new;
God sent his angels to paint the sky
In the sunset's changing hue.

They dipped their brushes in morning light
And then in the crystal sea,
And swept the clouds with the touch of love,
Then laughed in their artists' glee;
For the western sky in its rainbow hues
Was a beautiful sight to see.

And while they gazed, their brushes wet
Dripped down on the earth below,
In splashes of daintiest blue and red,
Pink, purple and all a-row,
Till the angels, noticing, understood,
Then said, "Let them root and grow!"

And thus the sweet pea flowers were born
To gladden the hearts of men.
But what of their perfume, do you ask?
Oh, that, too, was given them then,
When the artist angels breathed a prayer
Which the flower-hearts yield again.

—Maude E. Smith Hymers.

LOOKING FOR QUAIL IN MEXICO.

By Harry T. Payne.

THE larger Mexican towns along the few railroads in the Republic have become Americanized to such an extent that one can live, in a way. It is true it is not a very pleasant way, but still one can live, if he be not particular, and don't ask too many questions about what he eats or where he sleeps. But my trip to the land of Montezuma took me some distance from the railroads and therefore a corresponding distance from modern civilization.

The trip to Hermosilla was a pleasant one, attended by all the comforts of American railroad travel. While Hermosilla is somewhat Americanized it is still a typical Mexican town, with about 12,000 inhabitants. The streets are quite narrow, with sidewalks from three and a half to four feet wide. The houses, nearly all one story with flat roofs, are all flush with the sidewalks. The windows extend to the ground and are protected with iron gratings. In the cool of the evenings the whole family camp on the sidewalk, and those who in an American town would expect to use the latter, have to take to the street. But the residents of Hermosilla never walk. If they have only a block to go they call a *carruage* by clapping their hands. These hacks, which are thicker than mosquitoes in Jersey, are antiquated concerns drawn by a couple of half-starved ponies and driven by the poorest and most heartless drivers possible. They use a whip nearly as large and of the same character as we used in "whacking bulls" across the plains: that is, a buckskin lash nearly an inch thick in the heaviest place, fastened to a stiff stock about eighteen inches long.

I arrived in Hermosilla about daylight, and having nothing else to do at that hour I laid down on the bed and fell asleep. My dreams, however, were far from pleasant, and I was carried back to life in Arizona forty-five years ago, when skirmishes with the Apaches were almost daily occurrences. I soon awoke to the fancied hearing of the rattle of musketry and sprang from my bed with the intention of taking a hand in repelling what I supposed was an attack of the ever dreaded Yaquis. Imagine my surprise, upon reaching the street, to find that this fusillade was nothing more than the constant popping of the ponderous whips of the alleged drivers of the Hermosilla hacks upon the nearly bare bones and often raw hides of their miserable livery. I will here add by way of parenthesis that the most promising business opening that I found in tne State of Sonora was for the "Society for the Prevention of Cruelty to Animals." The field has never been exploited and the native crop is perennial.

Every house in a Sonora town is the counterpart of its neighbor. They are like the Missourian's oxen: "They look just alike, only some a little more so." Whether it be residence, school, store or shop, they are all built on the same plan, inside and out. The houses, however, have a clean appearance and the streets are kept in good order. The city is well policed; or one gets that impression, at least, from the constant semi-musical calls of the patrolmen as they make their rounds. I can not say whether or no burglaries are ever committed, but certain it is no burglars are ever taken alive, for the din of these patrolmen, if not sufficient to scare the life out of the average able-bodied burglar, would certainly scare him away before one of these doughty guardians of the city's peace ever got within a block of him.

But I shall have to leave Hermosilla, with its many strange and interesting features, and talk about the "back country," for my mission was to find and secure certain species of quail. To a Mexican, a dog is a dog, and a quail is a quail, without distinction of species. Whether it be a hound, a mastiff or terrier, to him it is simply a "*perro*." So it is with the quail family. The *colinus*, the *lophortyx*, the *callipepla* and the *cyrtornyx* are all "*cordoniz*" and nothing more. Therefore, the man who hunts for any given species among these people—who never shoot quail—had better take his dog, his gun and

his blankets, and avoiding all questions and ignoring all advice, literally "take to the woods."

I wanted to find a place, not too far from the railroad, where the masked "bobwhite" (*Colinus ridgwayi*) were in sufficient numbers to enable me to trap two or three hundred of them. My first trip in this pursuit was up the Sonora River to the ancient town of Ures, about fifty-four miles from Hermosilla. There is an alleged stage line between the two towns, the stage being a kind of hybrid between a single-seated buggy and a small buckboard. The spring on the starboard side had given way and was held up by a liberal wrapping of fence wire. Both ends of the double-tree were lashed back rigidly to the axle with wire, and the whiffletrees were secured to the double-tree in the same manner, and with the same material. A dozen other breaks in the vehicle were patched up with wire, also. Mexico is certainly progressing; it used to be rawhide, but now the steady march of civilization has forced her away from such primitive methods and she has entered the iron age, and mends everything with wire now. The harness, from its appearance, might have been brought to the country by some of the early *Conquistadores*. The tops of the hames were fastened with wire and the bottoms with pieces of hair rope, while the tugs were held up with strips of canvas over the backs of the mules. The reins (by which the Mexican driver(!) never guides his team, but jerks them around) were a couple of ropes tied to the outsides of the bridles, with another short piece connecting the inner sides together. The team consisted of a pair of half-starved mules about the size of small jacks. One of the pair had nearly all the hair whipped from one side, and much of the hide cut into sores with the huge whip. The only thing that a Sonoranian ever learns or has any ambition to learn about driving, is the use of his cruel whip and to see how badly he can cut up his team.

With this "stage" we reached the little town of San Jose about two o'clock, where I was informed that I could get lunch at the hotel. This hotel I found to be the usual adobe house with a dirt floor. I climbed over a bench and seated myself at the table, and without being given any choice as to what I would eat, I was served, in granite-ware table service, with some kind of a meat stew against which even a strong and healthy appetite rebelled. Accompanying this were a stack of tortillas, as thin as wafers and about sixteen inches in diameter, with black coffee—not black from strength, but on account of being burnt in roasting. Beans, in an earthen bowl, were brought in later by way of dessert. With a change of team and by virtue of the driver's strong right arm and power of endurance, we arrived at Ures at 8:00 P. M.

At Ures I found another hotel of the same type. After dinner—which was a duplicate of my lunch—I was shown to my room, where one of three cots was assigned to me. The room had a brick floor, bare, white-washed walls, and a dirt roof from which I was given the pleasant information that a scorpion or centipede was liable to drop onto the bed at any time. A little washstand, with a granite-ware pitcher and basin, a 6x8 mirror and a couple of chairs, completed the furniture. The beds in this, the best hotel in the ancient capital of the State of Sonora, consist of a bare cot covered with a coarse sheet, a blanket, and a hard, round, wool pillow. After one's bed is assigned, all further duties of the management cease. You are expected to make your own bed and bring your own water from the well in the *patio* (court) onto which all rooms open. The table at this hotel—which by the way, was yclept the "United States"—had the one merit of being reliable; that is, one always knows just what the menu will be. *Menudo* (a kind of stewed tripe and corn), a species of tough bread and black coffee, with beans for dessert, was the never-failing breakfast. Lunch consisted of execrable lettuce and spongy radishes chopped up together and served, not as a salad, but as a kind of coarse filling; a miserable meat stew, the same tough bread, which was always scattered round the table without any plate, and the ever-present black coffee and beans. Dinner was a repetition of the same card with the exception of the lettuce-and-radish hash.

At Ures I found the same blissful ignorance and indifference as to species of quail as I had found at Hermosilla. But at last I found one man that seemed to get an idea of what I wanted, and who told me that I would find them near Tobispo, some sixty-five miles

to the south. Finding a couple of American mining experts destined to the same place, we joined forces and hired a four-mule team and small lumber wagon to take us there, with the understanding that the trip should occupy but one day. By a prodigious popping of the whip and innumerable oaths grinding the dough—for the meal is ground wet—for the *tortillas* for our supper. We sent the driver to rustle up some eggs, which with the *sine qua non*, beans, and something that might have passed for a dead horse stew, made our meal. The next day at two o'clock the driver informed us that his team

Photo by Bushnell. THE "ELEGANT QUAIL" OF SONORA (*Callipepla Elegans*).

from the driver—and a good many from us before we got through—we succeeded in making just one Spanish league an hour, so that when it became dark we found ourselves at the Indian rancheria of Bamuco, not quite half way to Tobispo. Here we had to camp for the night. An old squaw got out her *metate* and a few handfuls of corn and began was so tired that they could not go any further that day, and we were yet three leagues from our destination. No remonstrance, no accusation of deliberate lying when he promised to take us through in one day, seemed to trouble him in the least. He simply grinned, looked idiotic—a quite natural expression, and said "*Quien sabe?*" It was

noon the third day before we arrived at Tobispo. Not finding here what I wanted, I went to Pueblo de Alamos. At this place I met a California Mexican, born and raised in Los Angeles. He at once recognized the birds I was looking for and told me that I could find plenty of them in the long grass in the hills near by, but that it was now so late in the season that it would be impossible to trap them. This, upon investigation, I found to be true, and I returned to Ures and made another trip up the Sonora River Valley to a point about forty-five miles distant.

In the cultivated fields at Ures I had seen a species of quail—the *Callipepla elegans*—whose habits I wanted to study, with the view, if satisfactory, of bringing some of them home with me. These birds have a straight yellow topknot, are strongly flecked with rich brown feathers down the neck and back, and conspicuously mottled with round white spots on the breast and sides. I found upon weighing them that their average weight was 180 grams, whereas the weight of the Gambel quail found in the same country was but 150 grams. They are considerably shorter in leg than the California quail, and do not seem to be given to running so much. While they roost in the trees, I never saw any of them take to the trees when flushed. Their call is somewhat like that of the Eastern "bobwhite," and like the Eastern bird, each brood remains by itself. These habits induced me to bring a few of them to California as an experiment, and I began to make arrangements to get them. But I at once realized in the fullest that I was in Mexico. One would think that where men were glad to get two or three days' work in a week at fifty cents (Mexican money) per day, they would have been glad of the opportunity to trap these birds for me at twenty-five cents per pair. In fact, they seemed to be, so far as promises went, but they were always going to do it "*mañana*" (to-morrow), and as *mañana* never materialized, my patience became exhausted and I made the traps and caught them myself.

While Mexico has an abundance of quail, the natives never shoot them and rarely trap them. They have no laws for their protection, and could not understand why anyone should want to take these birds to another country for breeding purposes. Many of the stories circulated among themselves regarding my real purpose were amusing. One of these was that I was traveling all over the world, collecting all kinds of birds and animals for circuses. I overheard one man, who assumed to be wiser than the rest, telling a little group that had gathered around him that Americans were great eaters and that I would make a big business by paying a "bit" apiece for these birds, for I would sell them for a dollar apiece in the United States, where money was plentiful. But I was hit hard "below the belt" by the only enterprising boy that I found in the country, when he came in with a blackbird in one hand and a sparrow in the other, and asked the landlord for the "*Gringo loco*" (crazy American) who wanted all kinds of birds and animals?" It is needless to say that I gave the enterprising lad a quarter for his two birds and turned them loose.

For the benefit of those who are interested in the preservation and restoration of the game of California, I will here add that I have arranged for the shipment of a couple of hundred of the masked "bobwhite" (*Colinus ridgwayi*) during the coming winter. The State Board of Fish and Game Commissioners is anxious to do all in its power for the game supply of the State, and this work, inaugurated by the bringing of a few of the "elegant quail" to the State, will be continued by the introduction of other species from time to time. Mexico is rich in quail, having on the peninsula of Lower California, both the mountain and valley quail of California, and on the mainland the Gambel quail of Arizona, four species of the genus *Callipepla* and at least three or four of the *Colinus* or "bobwhite." The climate of northern Mexico is very similar to that of California, and it is reasonable to suppose that some, or even all, of these species may do well if introduced into this State. Some of these species, like our own native quail, are hill and brush birds, but others, like the elegant quail, are purely field birds; and others again, like the *Colinus ridgwayi*, avoid the brush entirely and live wholly in the large grass patches of the mountain valleys. Birds possessing the qualities of the two last species mentioned are what we want in California, and no effort should be spared to ascertain if they will adapt themselves to our climate and conditions.

Notwithstanding the maligning that the

California quail has been subjected to by Elliott, Van Dyke and other writers for his running qualities, he is nevertheless, when given cover to hide in, the most perfect hider of all the game birds of the United States. No bird will hide on a brushy hillside where there is no under-cover in which to conceal himself. If the valley quail refuses to lie under such circumstances, it is but another evidence of that active little brain which makes him the gamiest bird that flies. I have shot every variety of upland bird found in the United States, and a very considerable portion of Mexico both east and west of the Sierra Madras, and I have found no bird so swift and strong of wind, none that can carry off so much shot, and none that will give one with a good dog, when hunted in reasonably good cover, so good a day's sport as the valley quail of California. But the encroachment of cultivation upon the feeding grounds of these birds, together with their constant hunting, has driven them out of our valleys and into the hills, until there are now but few places in the State where they can be found in any considerable numbers, in country sufficiently open for the use of a dog. What we want to-day is not a better game bird, but one like the "bobwhite" and elegant quail, that will live in and about the cultivated fields. This the Fish and Game Commissioners are trying to find. The introduction of the elegant quail of Sonora may or may not prove a success, but be that as it

Photo by Bushnell. GAMBEL'S PARTRIDGE (*Lophortyx gambeli*).

THE CALIFORNIA PARTRIDGE. (PHOTOGRAPHED FROM LIFE BY DR. R. W. SHUFELDT.)

may, there are yet two or three other varieties which will be tried, in the hope of finding a field bird that will adapt itself to our climate and present conditions.

BREAKING CALIFORNIA HORSES FOR THE ARMY.

By H. G. Ponting.

SHORTLY after the outbreak of the Boxer uprising in China there was to be seen at Baden, a small country town in the San Mateo hills, not more than a dozen miles from San Francisco, a sight so thrilling in character and extraordinary in interest that probably only Western America could furnish the like; for near to the outskirts of this little town there was waged a warfare so rough and determined in almost all its stages that the recollection of it will never fade from the memory of those who were privileged to witness so unusual a spectacle.

It was a warfare, not of man versus man, but of man against beast—of man's will and intelligence against brute strength and animal instinct. Every battle was fought, by either side, with a determination that could only evoke admiration from the onlookers, and as each side brought to its aid all the strength and skill of which it was capable the conflict was naturally fierce. The result, however, was always the same, and ended in the ultimate victory of the human will over that of the brute.

In some cases, though, the brute cheated his captor by fighting so stanchly that he emerged from the fray damaged to such an extent that he was condemned to an ignominious death from a rifle shot, whilst many a man will bear to the grave the marks he received in the struggle.

The reason of it all was because the German government had purchased in the West several thousand horses and mules on which no halter had ever been placed, and these had been driven from the great ranges in California and Nevada to Baden, there to be hastily broken in by some of the most skillful vaqueros in the land, for use by the German cavalry and light artillery in China, where they were being shipped as fast as ready.

On arrival at Baden the animals were inspected by the German experts, and if fulfilling the necessary qualifications with regard to age, weight and condition, they were accepted for cavalry or artillery work, as the case might be; for cavalry horses ranging about 1,000 pounds were selected, whilst those of greater weight, and the mules, were for transportation or artillery purposes.

The vaqueros who performed the difficult and dangerous task of taming these wild brutes are men of wonderful pluck and agility, to whom fear of anything in the shape of horseflesh is absolutely unknown. They are past masters in the art of subduing the equine spirit, and the skill with which they throw the lariat is a thing which must be seen to be appreciated, for words can not picture the actions which are so graceful to the eye, nor can any photograph, caught in the fraction of a second showing the thrower transfixed with arm outstretched and rope in mid-air, do the subject justice. It is the whole act of throwing the rope which is so pleasing to see, from the instant it leaves the owner's hands to the next when it circles around the victim's neck.

The stock was driven in bands across country from the ranges and into one of the largest of a series of wooden-fenced corrals, where the different stages of horse and mule education were taught. The first step was to separate the horses from the mules, and there was perhaps no prettier sight on the grounds than when a hundred or more of them were cantering together round the fence line, with a half dozen vaqueros after them. It was the first time these young animals had ever known restraint, and as they followed each other with heads high in the air, nostrils distended and startled eyes, the horses neighing and the mules braying, it formed a picture hard to duplicate.

The separating was easily accomplished, much more so than the next step, that of getting on the halter. To do this several vaqueros entered the corral, with as many men on foot, and then the roping began, for that was one of the ways employed of catching them. The vaqueros rode in among the herd, and each singling out his victim whirled his lariat several times around his head and launched it out into the air. It was not often that

"AT THE END OF HIS ROPE."

the aim was untrue, and almost as surely as it left its owner's hand did that thin circle of rope settle round the neck of the victim singled out. The effect upon the captive was electrifying. Such treatment they had never known before, and each seemed terrified to find his freedom curtailed in so unceremonious a manner. A spirited young horse does not submit to such an indignity without protest by any means—nor a mule either—but fights with all his strength to break away. He begins a mad struggle to regain his freedom, and goes off with a rush until the slack of the rope is exhausted, when he is brought up with a rude jerk that throws him onto his haunches. This only curbs him for a moment, however, for though he has lost the first round he is still full of fight, and rears, plunges and kicks, throwing himself ofttimes head over heels in his fury to get away. But the rope, though light, is of horsehair and strong, and the vaquero plays his victim as a skillful angler would a game fish. The end of the rope is firmly tied to the horn of his Mexican saddle, and his horse is as clever as the rider in the way he gives and takes on it, and braces himself so that he is best able to cope with the strain of the struggling captive.

A STUBBORN CUSTOMER.

If the fight lasts too long another cowboy ropes the captive round the legs, and thus securely caught neck and foot, he can not last much longer, for his struggles have tightened the rope until he can scarcely breathe, and his fighting powers are greatly curtailed by the second rope. Fight, however, he will until the very last, when exhausted and sweating from every pore he goes down for good in a cloud of dust. He is then quickly haltered and turned into another corral, where he is allowed to run loose for a day or so, dragging his halter rope with him to accustom himself to the idea. Though he may at times

"HE GOES DOWN FOR GOOD."

fondly imagine himself free again, he is rudely awakened from his dream each time one of his mates steps on his rope, giving him a jerk that is very irritating, and reminding him most forcibly that his days of reckless, devil-may-care freedom are at an end.

During this stage of his education his captors are busy with others of his kind, more or less obstreperous than he, and then he is tied to a hitching post, which is invariably the cause of another pitched battle to get away from the hated halter. Each day for some days afterward he is tied until he begins to realize the futility of protesting.

The next step is the severest trial and perhaps the most interesting of all, for without more ado, let him kick, rear and plunge as he may, a saddle is fastened on his back.

It is a ticklish job, however, and one has to keep a sharp lookout for the flying hoofs. Some of the horses must first be blindfolded with a sack, whilst others have to be thrown before the saddle can be got on. With much coaxing, men carefully and gently edged up with the saddle and quietly fitted it in place, the most acute watchfulness being necessary here, for an apparently peaceful animal may in an instant become a perfect devil in his frenzy to break away, and with a single kick scatter a man's brains over the ground.

It must be remembered that these animals were not reared to know the presence of man, but were wild from the prairie, with all the fire and love of freedom that the American "bronco" possess in their blood. It seems to me that I must have seen at least a dozen men escape death only by the breadth of a single hair whilst performing this part of the work, and several I saw kicked badly but not fatally, though as a rule they displayed the most marvelous alertness in avoiding the vicious kicks.

The saddle on, the horse is led, fighting all the way, to a round corral closely boarded, where the vaquero, carefully watching his chance, springs to his seat. Then the fun begins, for the wild Western bronco is not made of the stuff to take this in cold blood. Never did he imagine that any one could presume to take such unheard of liberties, especially as insult is being added to injury by his tormentor, who is steadily belaboring him on the shoulder and flank with a "quirt," as fast as he can rain the blows.

This is more than horseflesh and blood can stand. The burden must be displaced at any cost! How much more easily thought than done, for let him buck, kick, rear, plunge and buck again as he may, he can not budge the cowboy from his back. When he has bucked himself to a standstill, the gate is opened and he is taken out onto the road. His spirits rise at once. Now or never is the time. Now for a wild dash for liberty, and surely nothing can withstand him on open ground. Alas! for another and still greater disappointment, for his enemy and he might be the bust and body of a centaur, so impossible does it seem for them to become separated. A mad, frantic dash down the road, kicking, rearing, jumping and bucking all the way, is of no avail, for the "bronco buster" stays where he was, smoking a cigarette, apparently as much at home as the ordinary mortal in his favorite chair.

EXHAUSTED FROM THE FRAY.

The game is a losing one, and the first rubber about finished. Soon rider and ridden come quietly back along the road, the latter now quite played out and apparently as gentle as a lamb, and the first stage of breaking a German cavalry horse is finished.

For several subsequent days a similar program was gone through, until finally there was little or no further resistance, and the horse was then turned out, broken as far as time would allow, for cavalry duty.

It must be remembered that these animals were needed for an emergency and wanted in a hurry, therefore the work of training them had to be done, and done quickly, for there was no time to waste on coaxing and gentleness.

It might be supposed that after a month's voyage on board ship any remaining fire in their composition would not be likely to cause much trouble; but eighteen months

AT THE TRANSPORT WHARF.

later, when in China and over the scene of the late war, I heard that many of the horses revived in spirit to such an extent shortly after landing that the Germans were utterly unable to ride them.

That the work was of the most dangerous kind was testified to by the number of men out of the three hundred odd employed who wore bandages or walked with a limp. The danger lay in every direction and was not confined to the equine hoofs. The lariat is leaping from the saddle only just as the horse was about to fall on him.

When a sufficient number of animals were ready, and a horse-transport about to sail, they were driven in bands down to the dock and along the wharf to the steamer's side. Up to quite recently the old method of hoisting the animals on board in a pen was employed, but this method has of late been entirely superseded when large numbers are to be shipped. The gang-plank is now used in

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sure injury, or perhaps death, should a man get it round him with a wild horse at the end. One of the vaqueros, whom I asked why his hand was bound up, told me that his thumb was cut off by being caught between the rope and the horn of his saddle.

It was an absorbingly interesting exhibition of rough riding and cool nerve. I have seen a cowboy get on an unbroken horse, remove the bridle and let the brute buck himself out without once losing his balance, whilst another man would make his horse rear and throw him backward to the ground, combination with runways through the hatches to the decks below. The berthing of a large number of animals is thus accomplished with a great saving of time and labor.

All the transports used had a super-structure deck built from the hurricane deck to the bow and stern, making the hurricane deck continuous from end to end of the ship, and thus allowing sufficient accommodation on the deck underneath for a large number of horses.

They were stowed on four decks, upper,

main, orlop and lower, and a most elaborate system of ventilation was always provided to insure comfort, even if found necessary to close the hatches, the experience of the Siam, one of the first U. S. A. transports, proving the vital necessity of this. She ran into a typhoon in the China Sea, and had to close all hatchways. When the storm abated and they were opened up again every man on board was kept busy getting the poor brutes out of their stalls by means of a rope around their necks and a derrick to hoist them over the vessel sides, for almost every animal had died from suffocation. The lesson was an expensive one, and was not disregarded. Since that time each horse ship has been ventilated so as to make a recurrence of such a misfortune most unlikely, though naturally no system of ventilation can quite equal that of the open hatchways.

It is an easy enough matter to get the horses up the gang-plank on to the ship, but once on deck it is quite another matter to induce them to go down the runway through the main hatches to the decks below. Going down a slope presents much greater difficulties to a horse than going up one, and when to this is added the entirely novel look of a dim hatchway with a right-about turn in the runway, the prospect is anything but inviting.

If, however, a horse resists too much—and the mules are by far the greater offenders—he is persuaded to change his mind by the application of a rope around his neck and another round his haunches, with a score of brawny cattlemen to pull him down. As a rule, however, example works much better than so forcible a precept, and many a young animal that would otherwise resist, goes quietly down, feeling easy in his mind from seeing several others of his companions immediately in front of him.

The accommodation, considering the large number carried, is very comfortable. Each stall is about three feet six inches wide, with ample pads both before and behind to prevent chafing should the ship roll. Once the occupant is in place, with the divisions slipped into position, he must manage without lying down until the end of the voyage. This is not, however, such a hardship as might appear. Many horses sleep standing from choice, but on board ship it is a case of "Hobson's choice," though should the horse desire to relieve his legs, the means are provided in the shape of two iron rings overhead, both in front and behind, to which are attached slings passing under his belly, on which he can allow the weight of his body comfortably to rest, an arrangement which must be a source of great comfort to the animals.

Each cattleman who accompanied the German horses had ten head to care for, thus the men were not overworked and were able to give the necessary care and attention which the horse at sea naturally demands, with the results that the mortality in the traffic amounted to almost nil, or at any rate cut but a very small figure.

"OFF TO THE FRONT."

SPORT IN AFRICA.

By Elmer E. Davis.

PART IV.

TO THE southeast of Lake Victoria, on the lake side of the Mau watershed, lies a very picturesque country, with towering hills covered by long, rich grass which often reaches the height of eight or ten feet. This extreme height is generally found among the scrubby mimosa groves scattered here and there. At the foot of the hills, valleys will sometimes be found with such a growth of grass as to be impassable to man. Although the hills predominate, fine, level plateaus and broad valleys will often be seen, with occasional forests of considerable extent. The hunter will naturally think this would be an ideal country for game, but such is not the case, for very few species are found here, on account of the rank growth covering the ground during and after the rainy season.

Just when this season begins and ends is not known for a certainty, as it seems liable to start at any time and end in the same manner, with no definite limits. I have been told that sometimes it will not rain for six months, but when it does start rain may fall at short intervals for a year or more. In regard to climate, it is very different from the seasons on the other side of the Mau summit, where the seasons are sharply defined. The game animals found in this region are also different from those on the opposite side of the Mau, although several of the same species are found here. It seems the dense forests of the Mau hills have prevented migration of animals from one side to the other; the game animals here must originally have come from the north, and, being isolated for centuries from others of their species, have formed certain little peculiarities of their own, but not enough in most cases to warrant classification as a different species. Here will be found the pretty little "orabi" and the "topi," whose purplish red color, shining in the sun, presents a picture not soon forgotten. Occasionally the large roan antelope (*Hippotragus equinus*) will be seen. The Jackson hartbeest is the animal most often encountered, for this is his natural home and it is here that their horns assume the most pronounced difference from other species of hartbeest; the horn pedicles here are very long, with horns set close together, in some cases touching at the base; they reach a length of twenty-two to twenty-four inches, the growth continues very close together and the tips of the horns in some cases are no wider apart than six or seven inches, although they turn out from the main body of horn. Bushbuck (*Tragelaphus sylvaticus*) and reedbuck (*Cervicapra arundinacea*) are sometimes seen, but they are not plentiful.

PALLAH BUCK OF NJORO BUSH.

At the time of which I will now write there had been no rain for several weeks; the natives had burned the grass, in patches where it had become dry enough, in order to allow a new growth for their cattle and sheep, of which they have a great number. By burning in this manner as fast as various spots get dry, a general conflagration is prevented, for should the grass be allowed to dry in all places before burning, the fire would sweep the entire country of every living thing.

We were a large party now, with twenty white men in the camp; and meat being scarce, I started one morning with ten porters for a valley known to be six or seven

miles away, in hopes of securing a hartbeest. Climbing a hill and looking into the valley, we could see the sun glistening on three different bands of the bay Jacksons, but they were on level ground with grass up to their bellies. The grass had been even much taller, but had fallen down from the weight of its ripened seed, and I knew it would be so tangled as to be impossible to traverse in any but an upright position, so stalking was out of the question. Taking my gunbearer, and telling the porters to watch for a signal from the top of a certain hill, I started to walk around to the leeward of the valley.

I expected to hide and allow the beasts to wind the porters, it being my plan to have the latter walk around the other side of the valley upon seeing my signal. As the beasts would naturally run from a suspicious scent, I was in hope that some of them would come close enough to me for a shot. The grass was like a net underfoot and walking was an arduous task. A mile of this work brought us to a mimosa grove where the grass, though over my head, stood very straight. We were proceeding very quietly when the silence was suddenly broken by a roar similar to that made by a high wind in a forest. Being at a loss to account for it, I turned to question Monga, but he had disappeared like a frightened hare. He soon returned, however, in a shamed manner, and said the noise was made by a band of animals running through the grass. In the meantime the noise had died away in the direction of the valley.

Advancing slowly, we soon came to the place where a number of animals had been lying down; the grass was knocked about and broken in a broad path where they ran when alarmed by our presence. We followed this path, as it led but little from the direction we had been going; it soon narrowed down to a singe trail a foot wide, the beasts evidently following one another here in single file. Eighty rods or so were traversed in this manner when the valley appeared, the far side of which could be seen above the tops of the grass, which was now considerably shorter. Creeping cautiously forward, a magnificent sight met our eyes.

Some three hundred yards away were, not the hartbeest I expected to see, but a fine band of roan antelope. Three bulls were standing in line, facing the place where they

NANDI HILLS ORABI.

had emerged from the tall grass, as if expecting an enemy to appear, but fortunately we had turned to one side of the path before coming near the edge of the cover.

Knowing that the horns of these animals are sometimes poorly shaped, I took my field glasses to look for the best set and was gazing intently at them when, without warning, every animal gave two or three jumps. As they started Monga whispered "*Figa, Bwana, figa! Ma quenda yote!*" (shoot, Master, shoot! All are running). I was heartily disgusted with myself until they stopped. I had several times before been cheated of a shot by my eagerness to secure the best horns, the game running away while I was looking at them. However, these fellows stopped. One large bull stood broadside to me and my first shot killed him; the others were terrified and leaped around in an astonishing manner, but I succeeded in dropping another bull before they made off. The first one shot had been hit in the spine, back of the shoulders. The second received the ball in the neck near the base of the brain. One set of horns was very good, but the other, though longer, was badly formed.

The reader will please not confuse the roan antelope of the Nandi hills with that of South Africa, where the horns grow to a length of thirty or thirty-five inches. In this case the horns were twenty inches long, and I have been told twenty-two inches was the longest ever secured in this locality. These antelopes are quite large, weighing about six hundred pounds, but gracefully built; the color is "roan," as the name implies. The ears are quite long, having a dark tuft of hair at the tip. Their horns, which start

ROAN ANTELOPE OF LUMBWA COUNTRY.

close above the eyes, curve up and back, sometimes forming a half-circle.

Being in plain sight of the porters, their attention was soon attracted and they hurried to us. The grass, for a short distance around, was not very long, making it easy to locate the place, so, leaving two porters to dress the meat, and sending one to camp for help, I took the others with me after a band of hartbeest which were visible on a sidehill over two miles away.

I thought they could easily be come at by stalking from the other side of the hill. After a very arduous walk we reached the desired location, and instructing the porters in no case to follow me until they heard shots, I left them. I knew it would be a long stalk, as the beasts were in a more unfavorable position than had been expected, and I would be compelled to crawl down on their side of the hill for some distance. The grass was full of flies which bit me in a very annoying manner while on my hands and knees, but if standing they did not bother my face, as they seemed to keep near the ground.

After an hour's work I was still some distance from a bush which had been selected as an objective point; arising, I could see the hartbeest still quietly feeding in the same place, and I was wondering how many the porters could carry as I slowly burrowed my way under the grass. Half an hour more elapsed before the desired bush was reached; looking my rifle over and finding everything all right, I arose. What I saw would make a saint weep! There, not a hundred yards ahead, were the seven porters, earnestly engaged in conversation. The hartbeest were nowhere in sight.

I was furious and strode toward them without a word, for my feelings were too strong for utterance. They saw me, and seemed to know they were in for it, so kept out of reach. As I drew near they received a tongue-lashing in every native language I was acquainted with, and could I have laid hands on them there would have been some sore heads, and they knew it. However, I soon saw the fallacy of anger and persuaded Monga to come near enough to find out why they disobeyed me. He said they had become alarmed by my long absence and were afraid a leopard had seized me, so they started to look me up. Having passed by without seeing me, and frightened the game, they were holding a council as to what should be done when I came upon the scene. So, you see, they were doing what appeared in their judgment to be right. I forgave them, although it was not very pleasant to feel my sore knees and hands, and to think of the merry meal the flies had made off my face and neck. I gave up getting any hartbeest that day, and returning to where the "roan" were, the porters proceeded to make loads of the meat. Telling them to wait for help and then all return together, I called Monga and started for camp.

As I had promised the porters a present of meat if successful in the hunt, I was not surprised when Monga asked if he could have half a rupee instead of his share. Not thinking, I gave it to him, and did not find out what a sharp trick he played upon me

SOME OF THE FELLOWS WHO RAN AWAY.

until night, when the porters arrived. Every one refused the present of meat, for both animals had died instantly, making the meat "unclean," according to their belief. The Swahili will eat no meat unless the beast moves during the operation of cutting the throat, during which operation a prayer or blessing is said by one of their number, and Monga had not been quick enough in operating upon the two roans.

I at one time during a hunt taught the porters a lesson in obedience through this custom. It was a standing order that every one take a knife along, but as it was necessary to carry it in the hand to prevent it being lost, first one, then another, got into the habit of leaving their knives in camp, with the result that after four or five hunts only one or two knives were brought along. Soon after starting, one day, I killed a large waterbuck for the porters. These animals, being tough and of a strong flavor, are seldom eaten by white men, but are seemingly relished by the natives. They ran swiftly to where the buck was kicking in a lively way, every one calling for a knife. Not one had been brought, and seeing mine in my belt, a chorus of "*Bwana, umpa keso yocha, pary !*" (Master, give me your knife, quick) was set up. I refused all appeals and the porters were frantic, as the buck kicked for some time in a tantalizing manner before dying. When he was dead I gave them my knife, made them dress the meat and carry it to camp, where it was devoured by the less scrupulous Wanyanawezi porters, who took every opportunity to twit the Swahili about carrying meat to camp for them. It is needless to say they never failed to take knives along after this, but the affair was treated as a good joke at their expense and was told to every newcomer.

Upon another occasion I had shot a hartbeest which died before anyone reached it, and the porters were discussing the subject when I arrived. Stooping over to conceal my foot, I put my toe under the hind leg and gave a push which caused it to move. This was enough; the porters yelled "*Na kufa sa-sa heve*" (he is dying now), and his throat was cut immediately amid exclamations of "*Mguri sana!*" (very good).

Several days later, Mr. Leuder (an American engineer) and I took a hunt in the region where the roans had been found. The day was very cloudy, with indications of rain, but we cared little for that. We separated soon after starting, with the understanding that we should come together about noon to eat our lunch. I saw several bands of hartbeest but was unable to get near enough for a shot, as the wind was too shifty. At noon we were several miles apart, for I heard a rifle shot very faintly to my left, from where the wind came. It had started to rain, so I circled around to the left in search of Mr. Leuder, with the intention of finding him and returning to camp.

After some time I discovered a band of hartbeest walking slowly around a hill, and started in the opposite direction to head

THOMSON GAZELLE AND STEIN BUCK.
AUTHOR'S PRIVATE CAR.

them off. It was now raining very hard and I was wet to the skin; my feet caused a crunching in my light shoes every step, for the ground was rapidly being covered with water. Stepping on an anthill, the horns of six or eight hartbeest could be seen above the grass about two hundred yards ahead; they were moving at right angles to me, in the direction of a slight raise where the grass was shorter. Soon one appeared, then another, but they were all cows and it seemed no bulls were in the bunch, when suddenly an animal with good-sized horns appeared. Thinking it was a young bull, I shot

it, but it proved to be an old cow with large horns.

While here, Mr. Leuder came up and said he had also been stalking that band, and the shot I had heard had missed. It was now raining with a steady pour, for on this side of the Mau the rains are not short, sharp dashes as on the other side. We were both wet-looking hunters, six or eight miles from camp, with grass from four to ten feet high to walk through. We ate our lunch of American canned beans and peaches, and started for camp, leaving the porters to bring the meat.

We were blundering along, paying attention to nothing but our feet, when two roan antelope ran past, a short distance ahead. We shot, and Mr. Leuder knocked one over, but it jumped up and ran away, followed by several bullets.

That return trip is without a doubt the hardest traveling I ever experienced in Africa; for the dead grass near the ground, which was brittle when dry, had become tough and tripped us at every step. We arrived in camp that night very nearly exhausted, and to anyone going to Africa to hunt I will say: keep away from the places where grass is so high!

The next day, feeling pretty good in spite of my previous exertions, I accompanied another of our party, Mr. Gemberling, on a trip among the hills in the opposite direction, with the hope of finding some orabi. A place was selected where the natives had burned numerous strips of ground. These strips were covered with short green shoots, upon which the dainty orabi love to feed.

By beginning where the fire had started, a person could walk some distance in a burned path from a rod to ten or more wide; the grass being a trifle green, the fire would not spread, but run before the wind. In this way several miles of country had been burned over, making it possible to keep in burned places by crossing narrow stretches of tall grass. We separated upon coming to this place, Mr. Gemberling going to the left and I keeping straight ahead. The first animal seen was a little "dik-dik;" he was no larger than a half-grown hare, but nevertheless he was a full-grown antelope. Running into the grass a short distance ahead, he turned to have a look at us, then disappeared. Monga and the porters declared this little fellow was a *palele*, which means, as near as I can understand, that he was a burlesque on the big members of the antelope family.

We soon arrived at the top of a small hill which was burned bare with the exception of some scrubby mimosa. As it looked like a very favorable place, I proceeded very cautiously to the top and looked around. Not fifty yards away were six orabi, three bucks and three does. They were all unconscious of my presence and the first two shots brought down two bucks, the third one fell after two more shots had been sent after him. Two of the bucks had very short horns, but one measured five and one-half inches, which was quite good. I sat down while the porters were dressing the orabi and watched Mr. Gemberling through the field glasses. He was stalking an orabi in plain view from where I sat, and as he shot I could see the little fellow fall. It was a good shot, for at two hundred yards the orabi is a very small target, as a full-grown buck weighs not more than fifteen pounds when dressed.

Turning the glasses in the direction of a little valley, a very good road or trail could be seen leading along the bottom and up over a hill. Sending one of the porters to camp with the meat, I descended into the valley and found a salt lick of good size. Following the road for a short distance, I came to a spring of fine, cold water, and drank from it before proceeding. After going from here I became light-headed and had considerable difficulty in keeping my feet. The porters, seeing my condition, cried: "*Bwana mgonjwa—komatta!*" (Master is sick—get hold of him). I recovered in a short time, but being afraid something really was wrong, returned immediately to camp.

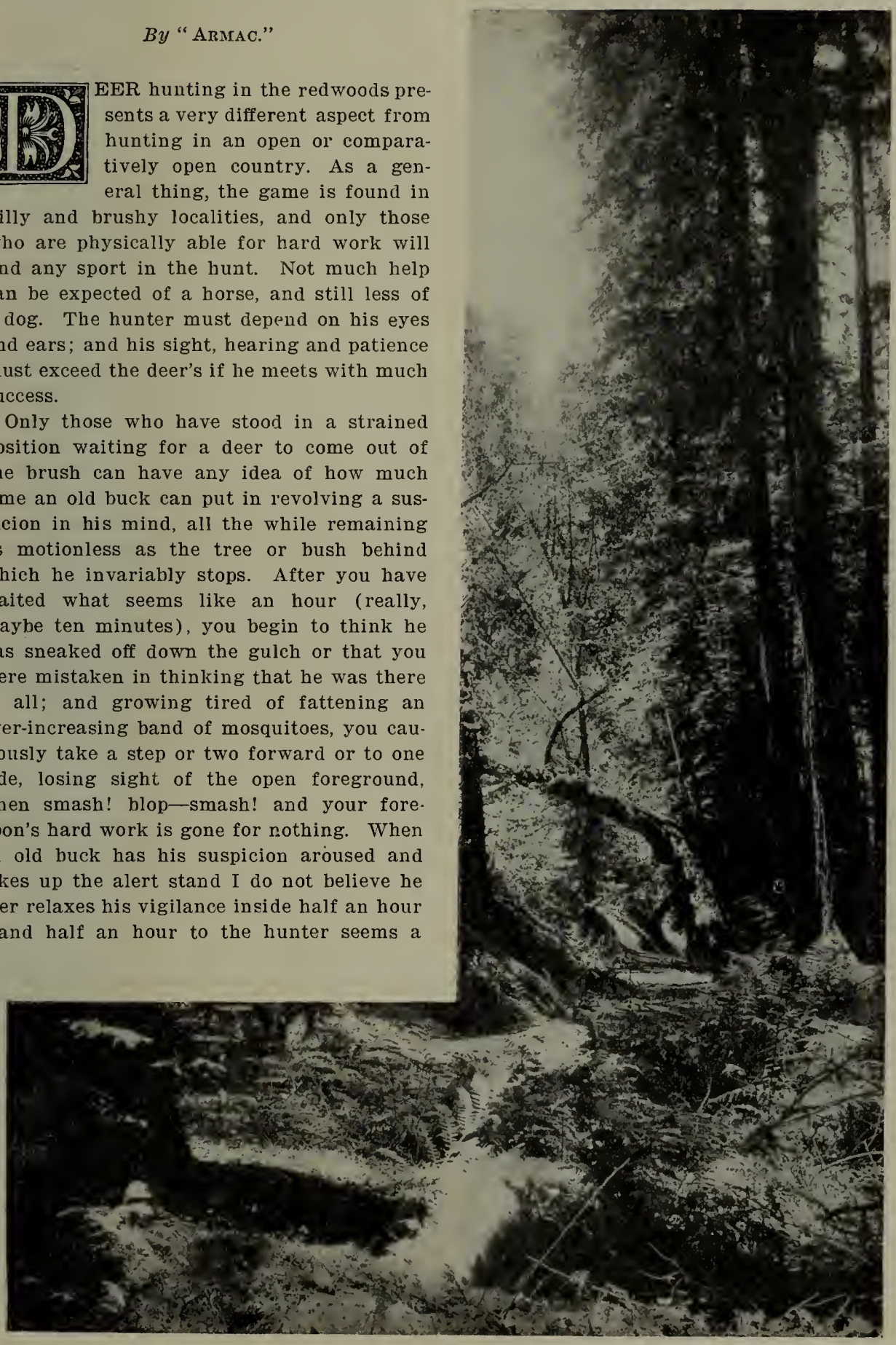
What caused the strange feeling I do not know, unless it was the cool water I drank while heated. I never felt any bad effects afterward, and during my stay in Africa was never sick a moment from any cause.

REDWOOD REMINISCENCES.

By "ARMAC."

DEER hunting in the redwoods presents a very different aspect from hunting in an open or comparatively open country. As a general thing, the game is found in hilly and brushy localities, and only those who are physically able for hard work will find any sport in the hunt. Not much help can be expected of a horse, and still less of a dog. The hunter must depend on his eyes and ears; and his sight, hearing and patience must exceed the deer's if he meets with much success.

Only those who have stood in a strained position waiting for a deer to come out of the brush can have any idea of how much time an old buck can put in revolving a suspicion in his mind, all the while remaining as motionless as the tree or bush behind which he invariably stops. After you have waited what seems like an hour (really, maybe ten minutes), you begin to think he has sneaked off down the gulch or that you were mistaken in thinking that he was there at all; and growing tired of fattening an ever-increasing band of mosquitoes, you cautiously take a step or two forward or to one side, losing sight of the open foreground, when smash! blop—smash! and your forenoon's hard work is gone for nothing. When an old buck has his suspicion aroused and takes up the alert stand I do not believe he ever relaxes his vigilance inside half an hour —and half an hour to the hunter seems a



terrible long wait. But when the game has reached this stage the one with the most patience generally wins.

The ground being brushy and broken, or with large trees standing close together, the game is generally killed at short range. The '92 model .38-40 rifle is heavy enough for this work, and I prefer the Lyman hunting front and leaf rear sights to all others. Do not use a peep sight unless you are shortsighted. The main thing is to make a clean kill, as if even shot through the vitals he may get into the brush where you can not find him without a dog, or plunge down a steep hill so far you can hardly get him back up again. The best shot is at the neck, about a hand's breadth back of the horns. It is just as easy to hit him in the neck as in the body if you accustom yourself to aiming at a definite spot instead of at his "hide." If you shoot down a steep hill, aim at his withers. If running, I always aim at the end of his nose and generally break his neck. Of course even a good shot will miss a good many this way; but a clean miss lies lightly on the conscience of a good sportsman, while the thought of a desperately wounded deer, getting away to die by inches in the woods, is matter for anything but pleasant thought by the evening camp fire. "A clean kill or a clear miss" is my motto, and I have made a good many of both.

An old Indian gave me the best advice I ever had on still-hunting: "Not much walk —heap look—heap listen!" He also told another thing which I have tried and found good: "You long time listen no can tell. Wet finger, put in ear. Hear heap good!"

The first thing of course is to get into the neighborhood of where the deer actually are. The next thing is to resolve to give yourself all the time there is. The open timber is the best hunting ground in the morning, but the brakes along the streams will be better later in the day. After two o'clock the chances are not worth working for; the bucks feed (in season) entirely on tan-oak tips and leaves, and upon the moss which at this time of year is falling from the fir trees, and do not come into the openings to feed like the does and fawns. Next, having gotten into a deer country, make up your mind that everything that appears to move, or has any peculiar look, may be a deer; and that every sound you hear was probably made by a

deer, and that the proper thing to do is to stop instantly and stand motionless until doubt is removed. But never shoot until you are absolutely certain what you are shooting at.

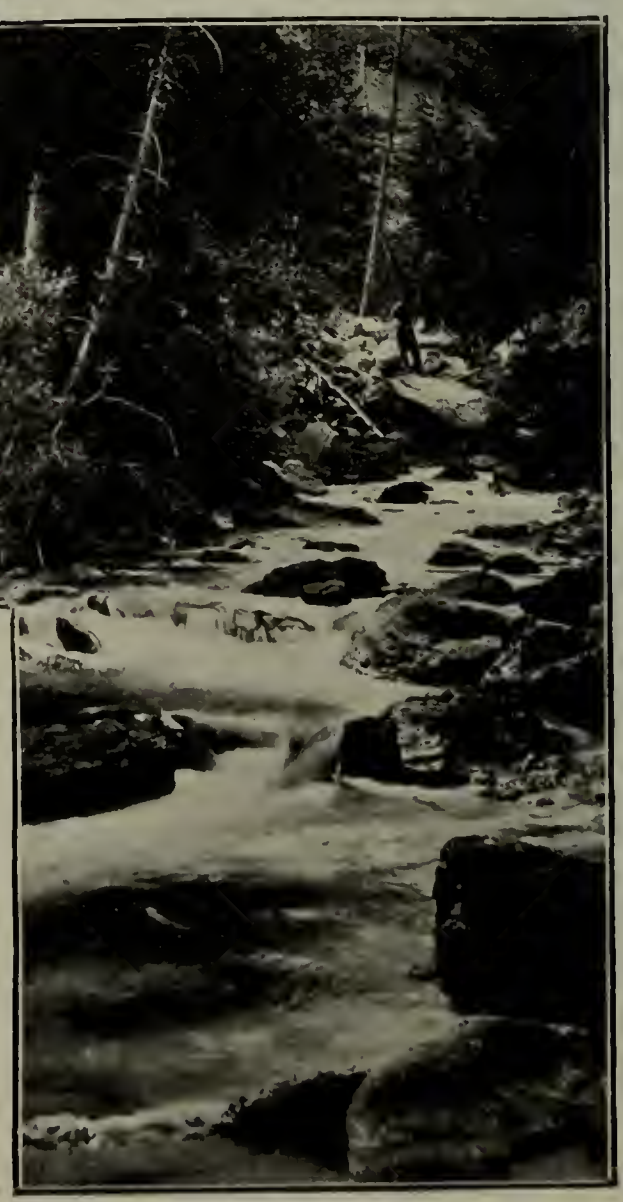
Seeing a deer is largely a matter of education; a practical deer-hunter will see ten to the novice's one on the same ground. Often an extra large leaf on a bush forty or fifty yards away will suddenly turn out to be a deer's ear. I remember the first deer I ever saw standing still in the woods. After much vain hunting, vexatious long shots, clean misses and all kinds of annoying get-aways, I had about exhausted my repertoire of excuses to the cook for the bacon diet to which we were reduced, so I started out to do or die.

Descending to the creek, I found a trail leading up a point into the open. Slowly and cautiously I started up, stopping every few moments to look and listen. Each time I noted, far up the point, a big oak tree with peculiar looking bark. I would go over a hump and see the tree, then down into a depression and lose sight of it. I could not see beyond it, but each sight showed the ground all clear between us. As I stood, for about the third time, on a high place to look, all I saw was the tree; but suddenly I thought I saw the bark move a little. I winked hard and pointed my gun in that direction. Again the bark seemed to move a little, still, in the flickering, checkered light, I could see nothing but the tree. A third movement, however, outlined a fine buck not fifty yards away, and with him I took away my reproach.

Never move forward while looking to one side or back. If you hear a noise to one side, or if you have to give any attention to any part of your outfit, always stop. By disregarding this rule I have lost more good shots than from all other causes put together. One day in September a heavy rain set in, and I struck out for a last hunt, knowing that when the weather cleared the bucks would begin to "run" and be worthless. I soon struck a ridge where fresh sign was plenty and was slowly proceeding down its neck when, neglecting to duck low enough, I got a big, wet spider web across my face. I was in a smooth, mossy trail and walking over the wet moss as noiselessly as a cat on a carpet. Instead of stopping, as I should

and at the crack of the old Ballard he dropped dead in his tracks. I ran to him, too much elated and excited to think of cutting his throat. I looked in his forehead for the bullet hole but there was none there; neither was it in his back or breast—no bullet hole anywhere and no blood! I began to think it was a case of heart failure, but on turning him over, I found his neck was broken. The .38-55 bullet had entered his open mouth and broken his neck without passing through, the bullet falling out when I cut him open.

For an animal so shy and so wary, deer sometimes show a surprising indifference to noise. One Fourth of July we decided to celebrate by a camping trip to an old abandoned logging camp on the river, about five miles away. There was no way of getting



have done, I dropped my rifle on my arm and, reaching for my handkerchief, wiped away the blinding wet web as I rounded the trunk of a huge live-oak just in time to see a brown ball at the foot of a fir, twenty steps away, explode into a big buck with one mighty leap that landed him safe in the blue-blossom.

I have heard people say there was no such thing as luck, but I don't think any deer-hunter ever became a convert to that belief. All kinds of luck are his. The first deer I ever shot in the redwoods came running down the sidehill opposite me and stopped suddenly (probably scenting me) in the bottom of the gulch, with neck drawn in and nose pointing upward. I fired at his head

there except on foot, so the procession formed at 8 A. M. on the third. It was a jaunt *en famille*, papa with gun and cartridge belt, a big roll of blankets on his back, a frying-pan and hatchet in his belt; boy No. 1 with a flour sack full of bread (on his back) and a tin pail of lunch in his hand; boy No. 2 had a blanket on his back and another tin pail; girl No. 1 with more lunch in a basket; girl No. 2 with some pepper, salt and sugar in a little bag; boy No. 3 with a piece of canvas and a stubbed toe, and mamma with a lot of miscellaneous small articles forgotten by everyone else.

About nine o'clock we struck into a trail leading down a long, flat-topped ridge under thick standing giant redwoods, papa thinking how those straps cut into his shoulders; two of the boys were in a loud and wordy dispute as to "whether this is the same trail we went with papa before," and the rest of the children babbling and yelling in sheer glee and good spirits. Suddenly I saw something and raised my gun, forgetting that it was loaded with a "short range" cartridge, and scored a clear miss! Taking a step forward to clear a bunch of huckleberry brush, I had a clear view of an enormous buck standing at the foot of a ten-foot redwood, his great horns laid back upon his withers, listening in apparent amazement at the racket and too curious and astonished to run away. Another shot from the old army rifle and he lay, a quivering mass, at the foot of the tree, almost before the procession had done bumping into each other and asking "What's the matter?"

After a long pull, a strong pull, and a pull altogether—even mamma being called in to help carry him—we got him up on the trail and found "we" had a prize buck, and the finest head of horns ever seen in the settlement.

A boy dispatched with a note to our neighbor at work in his hayfield half a mile back brought word that Mr. P. would bring his horse and pack our game up to his house at noon, and we resumed our march for the rendezvous. I saw another deer, but being sated with slaughter, forebore to shoot.

At the brink of the cañon discipline gave way entirely, and with "Come on—hurry up—where are you?" etc., papa and mamma were left, far in the rear, to get down 800 feet in the last half mile as best they could. Arriving at the river about 1 P. M., we were met by a torn and tattered band of raspberry-stained rascals all shouting at once: "Oh, papa, we saw a deer! We saw two deer! We saw three deer!—right close by—where were you? Why, we've been here an hour! We're almost starved to death!"

Mamma looked around for the promised cabins but there were none in sight, and she immediately had visions of an open-air camp with fierce panthers and bears slyly reaching their paws for her babies. The children averred there were no cabins on the flat. "We've been all over it!" Mamma asked, with a very serious air: "Are you sure you are not lost?" I treated the question with the silent scorn it deserved and shouldered my way through the suckers that are trying to hide the ravages of the loggers, toward a corner of the flat where a clear, cold little stream gurgles down its rocky bed to the river. Here were three comfortable cabins with "stick and clay" chimneys.

After a hearty lunch and a good rest I carried out the old boughs and filled the bunks in one of the cabins with fresh ones, while the rest took the tin pails and stripped the raspberries from the vines. We tried the fishing in the evening, but had hit the stream too low down for the hot weather, and so only got a few medium-sized and small trout. Everybody being tired, we ate an early supper and went early to bed, to be awakened at daybreak by a robin sitting on our roof-ridge and singing as only the birds of the wilderness can sing.

Breakfast of fried trout and deer's liver, and away to the berries again. Fortunately, we had brought along plenty of sugar and could enjoy berries to our hearts' content every meal—and such berries! Large and luscious and in the greatest profusion everywhere. By noon all available vessels were filled, including an old soap box, repaired and lined with ferns. We spent the afternoon fishing, bathing and exploring, and as night came on more chilly than before, we built up a fire in the old fireplace and sat round it till bedtime, discussing the various events of the trip.

Up in the morning early, we cleaned up the last of the "grub," and long before sunrise began the climb of 1,200 feet out and up for home, where we arrived about 1 P. M., tired, berry-stained, ragged and hungry, but glorious.

Well, I am getting too old to climb the

steep hills with a deer on my back now. I doubt if I will ever kill another. I never care to kill any animal—unless it is a "varmint," or I need the meat. I would rather walk noiselessly through the woods and see the wild creatures feeding or at play in their native wilds, all unsuspicious of danger. Last fall, when out in the woods, a gray squirrel came down from a tree near where I was standing on a log; he eyed me awhile, ran up a little sapling, eyed and scolded, came down, and finally jumped up on the log, cautiously edged along and wound up by trying his teeth on the toe of my boot, then scampered away, apparently satisfied.

I am sorry that I have not the power to reproduce for others many of the beautiful sylvan scenes as memory recalls them. One in particular I have always remembered with delight. One morning, after a rather noisy descent of a steep slide, I stood among the huge redwoods on a little flat. Looking up on the sidehill facing me, I saw, framed in an archway of glowing verdure, a young doe and her fawn. The morning sun fell full upon them; the little spotted beauty stood broadside to me, under his mother's neck, his great, lustrous eyes turning first down upon me, then inquiringly up at his mother. She, in turn, was a picture of anxious distress and tender solicitude. I would willingly exchange my finest pair of horns for their picture as they stood there that morning.

There is another scene I would rather forget. It was late in the fall; I was alone in the woods and out of meat and well nigh out of everything else, except salt and ammunition. The day was blustery, with dashes of cold rain. The woods were full of trails, but the deer had apparently migrated. Near night, when I had gotten almost back to camp, I jumped a little fellow who had just lost his spots. A shot through the brush missed him, but at the crack of the gun he turned and crossed the open ground below me; a second shot knocked him down, apparently dead, but as soon as I came within ten steps of him he began to bleat and bawl and kept it up until I put another bullet through his head. Turning round, I saw the doe standing nearly where I had been when I fired the first shot, and I hope I may never again feel as much like a condemned murderer as I did at that moment. Sometimes I yet hear that agonized call and see the look of terror and pain in the dying fawn's eyes, and of nights when the wind blows I see again the sad, reproachful eyes of that poor doe and I can not sleep.

THE HAUNTED HUNTRESS.

THROUGHOUT the day, the surge of human life,
Glad music and soft song of friendship's waves,
Will smother in your prisoned soul the strife
Of eyes that search the depths of dead love graves,
Until the shade that night has made
To your heart brings, with bleeding wings,
A yearning love—a wounded dove.

Your eager, skilled, and keenly searching eye
Sped swift the arrow from its certain aim;
A sigh—a tear—to see each victim die,
Forgotten soon in search for other game;
But in dark's deep, when shadows creep,
Above your head, of Love not dead
The cry is heard—a wounded bird.

For aye it comes, night after night the same,
But gaining strength with each nocturnal flight,
For that sure time when prison-home and name
Shall fall—to bear with warm embracing might
Within its breast, to downy rest
And peaceful goal, your huntress soul—
Revenge of Love, undying Love.

—*Horace Walter Burr.*

WESTERN FIELD.

The Sportsman's Magazine of the West.

OFFICIAL ORGAN
OLYMPIC ATHLETIC CLUB AND THE CALIFORNIA FISH AND GAME PROTECTIVE ASSOCIATIONS.

PUBLISHED MONTHLY BY
THE WESTERN FIELD CO., (Incorporated)
SAN FRANCISCO, CAL.

Offices; 4 Sutter Street, corner Sansome Street.
Telephone, Main 1262.

Registered at the San Francisco Postoffice as Second-Class Matter.

FRANK H. MAYER, - - - - Managing Editor

Matter for publication should be addressed "WESTERN FIELD," 4 Sutter Street, San Francisco, Cal., and not to individuals connected with the magazine. All copy for new advertisements, changes or discontinuances, must be in hand not later than the 10th of the month preceding date of issue, in order to insure attention.

THAT BLESSED VETO!

CONSIDERING the recent vicious but happily aborted conspiracy among a certain Congressional element and a few rapacious and mercenary traffickers to abolish the Alaska game protective laws and so destroy the source of our migratory game bird supply at its very fountain-head, it is a matter of much general public congratulation that the Chief Executive of this nation is a thorough sportsman of the highest possible type, one extraordinarily well versed in all the conditional requirements essential to the preservation of the people's most valuable asset, the game birds, beasts and fishes of this country.

American sportsmen may rest well assured that Theodore Roosevelt, sportsman, is not lost in the dubious labyrinth of political policy. His is rather the wholesome, strenuous and altogether manly habit of putting the jungle of political entanglement to the edge of his incisive reason, no matter what creeping thing the inlet burst of sunlight may scathingly expose. Roosevelt is a man who walks erect and without fear in the dark places. He has that greatest of all moral courage, the courage of his convictions —which is the courage to do right as he sees it. And it may be said in all dispassion that neither Roosevelt's physical nor intellectual vision has perceptibly deteriorated in the trying glare of his present high eminence.

With the President's denominational politics this journal has nothing to do. We are concerned only with the man—the enthusiastic fellow-sportsman whom we all admire and respect. We believe fully in the maturity and soundness of his views on game protection, and are confident that his unhesitating veto will always stand between the people and those who would unscrupulously rob them of their heritage. He is not a man who would trade his convictions for political preferment. Even as he always prefers to hunt alone and so work out his own chances, so will he stand alone, if occasion demands, in his defense of good logical game laws, cost him what it may.

Therefore are we, who know him, not losing any sleep over the machinations of corporation game-hogs and their Congressional mouth-pieces. For Roosevelt's pen is as sharp as his hunting-knife—and we know what he did to other "varmints" when he brought them to bay. We have a vivid mental picture of what he will do to any game-hog bill that the skin and head butcher rabble may have the temerity to offer for his signature!

THE SPORTSMAN'S DUTY.

TO MOST of us the word "duty" is synonomous with disagreeableness. There are very few prescribed duties, indeed, whose performance yields us any pleasure—possibly because they are prescribed and obligatory. The average man instinctively resents being told what he ought to do; he elects, rather, to be a free moral agent and everything that smacks of restraint is irksome to him.

Then, again, it is a melancholy fact that sentiment is more often than not the force that impels the performance of a so-called duty, cynical as the asseveration may seem; an appeal to our generosity, our mercy or even to some conventionally established dogma illogically forces a line of action which has no connection with duty in the real sense of the word. Duty, in short, admits of no sentimental modifications; it is a thing of cold, stern, inflexible reality and generally is a most onerous quantity. It is the duty of all sportsmen, for instance, to report to the

proper authorities any and all violations and infractions of the law, no matter what the personality of the offender may be. Duty is active, not passive, and that sportsman who thinks that he is doing his whole duty by personally refraining from any infractions of the game law is very wide of the mark. It is every sportsman's duty to make the proper and full enforcement of the game laws his own particular and individual business. He owes it as much to the community as he does to himself; he owes it even more to posterity for it is his divinely ordained duty to conserve the interests of the generations yet to come.

It takes considerable courage of the moral kind to inform upon a friend who is guilty of a misdemeanor of this kind, and few men can steel themselves to do it; yet if you detected that same friend burglarizing your private hoard you would be troubled by no indecision in the matter. In such a case sentiment invariably yields to selfishness; why not apply the same rule broadly for the common benefit? Throw sentiment to the winds and bring every offender to justice. You are only safeguarding your own heritage in so doing and no honorable man can take exceptions to it. Possibly the chiefest objection to such a course is one based on the same conditions that moved a certain cattle-thief to say that he could not be convicted by the jury trying him, inasmuch as they had individually aided him in similar thefts on divers occasions. Of course the man who lives in glass houses has no license for promiscuous stone-throwing. All the same, there is much forgiven him who repents and turns over a new leaf. Game law violations are virtually thefts of the people's assets, and the despoilation can not go on indefinitely. There must be a stopping point reached soon, or there won't be anything left to steal.

A WORD TO OUTERS.

THE exodus of sportsmen and outers having now fairly begun, it is safe to say that inside of thirty days there will be thousands of campers in the forest and by the streams. We desire to impress upon the minds of our friends that every accession to their number increases the possibilities of accident in the way of forest fires, gunshot wounds and the hundred and one other contingencies that attends the turning loose of long restrained exuberance.

Particularly do we dwell upon the two former, and we earnestly urge that this year every camper exercise a special care in the control of campfires, and in the use of firearms when a-field. Fire, while an exceeding good servant, is an excessively bad master, and once carelessly allowed to get the upper hand will work irremediable damage. It is to the denudation of our mountains by carelessly ignited campfires that the destructive floods of the past season were directly owing. In the burned over district there is no foliage or root suction to hold and absorb the moisture precipitated by rain and snow storms, and the result is that the water goes off with a precipitous rush, all at one time, instead of being retained and disseminated gradually and beneficially as under normal conditions. The effect is disastrous as we have reason to remember too well.

Then, again, the haunts, homes and cover of the game animals are destroyed with their lives, and it will take ages to regain their primal condition. The streams dry up and the trout go with them. Instead of the delights born and bred in the umbrageous retreats, we have landslides, floods, desert barrenness and a dearth of all that goes to make an outing enjoyable.

In the matter of firearms accidents we can only say that we suppose that, until guns of all kinds are made fool-proof, the perennial crop of idiots who blow down the barrel to see if it is loaded; who shoot at every thing which moves in the woods; whose highest ambition is to shoot target matches in camp, at cracker boxes, with high-power modern guns charged with steel-jacketed bullets which usually range over into another township and kill inoffensive decent people, will be largely in evidence, with the usual results.

The exercise of a little common sense and ordinary care will obviate all this. We most respectfully urge that it is much better to know what you are shooting at—and to shoot only at legitimate game—than it is to pack out a dead or dying man on your shoulders, to ultimately face the contempt of sensible men and the more or less gentle re-

proaches of your victim's relatives who are apt to say things that may hurt even your refined feelings.

Therefore it behooves you to look carefully to your campfires, your game and your target practice. And don't, in the name of all that is decent, litter up God's temple with offal and rubbish! Try to see just how clean and sweet a camp you can keep. Kill no more game than enough to satisfy your necessities. Leave the blessed woods as pure and undefiled as you found them on coming, and your days will be filled with content and your nights with peace.

And above all things keep this axiom in mind: Only fools go camping to "rough it." The ordinary home existence is usually rough enough. The wise camper goes to smooth it and enjoys a consequent comfort and rejuvenation that the former wots not of.

COUNTY ORDINANCES.

BY LEGISLATIVE enactment the various Boards of Supervisors have, in their respective counties, jurisdiction and power to provide, by ordinances not in conflict with the general laws of the State, for the protection of fish and game, and may shorten (but not extend) the open season for the taking and killing of fish and game within the dates fixed by the general State law.

The ordinances as published below are, so far as we can ascertain, correct; changes are, however, liable to occur from time to time, necessitated by new conditions, and we will make such corrections when they eventuate. If in any doubt, please address this office, and information will be gladly given. Where counties are not enumerated in the following list, it is to be understood that no departure from the general State law has been adopted.

El Dorado.—Male deer, September 1 to November 1; tree squirrel, August 1 to October 1; trout in Lake Tahoe and Loon Lake, June 1 to November 1.

Fresno.—Doves, August 15 to February 1; quail, November 1 to February 1; male deer, September 1 to November 1.

Humboldt.—Trout, May 1 to November 1; striped bass, closed until January 1, 1905; barnacle or black brant, October 1 to March 1; Wilson or jack snipe, September 1 to February 15; English or Mongolian pheasant and wild turkey, closed until January 1, 1906; ducks, limit of 25 per day; black sea brant, limit of 8 per day; miscellaneous bag of game birds, not to exceed 40 in number per day's shoot.

Kern.—No game to be shipped out of county.

Kings.—Doves, September 1 to February 15; quail, November 1 to February 15; deer, September 1 to November 1; black bass closed for two years; limit on ducks, 25 per day.

Lake.—Male deer, July 15 to September 15.

Los Angeles—Doves, Aug. 1 to Sept. 1; male deer, July 15 to Sept. 15; trout, May 1 to Aug. 1; gulls, terns, meadow larks, robins, flickers, brewers blackbird, road runners, orioles, mocking birds, the water ousel, the barn owl and other species of beneficial birds are protected at all times in Los Angeles County. The putting out of poison mixed with or dissolved in water for the purpose of poisoning birds or animals of any sort is forbidden.

Madera—Doves, August 15 to February 1; valley quail, November 1 to February 1; male deer, September 1 to November 1; ducks, limit 25 per day; duck selling prohibited; trout limit 10 pounds per day, size limit, 6 inches; black bass, closed for two years.

Marin.—Male deer, July 15 to September 15; doves, August 1 to February 15; quail, October 15 to January 15; tree squirrels, July 1 to February 1. Shooting on county roads prohibited. Killing of larks and other song birds prohibited.

Mendocino.—Male deer, July 15 to October 1.

Merced.—Doves, August 15 to February 15.

Monterey.—Deer, July 15 to October 1. No hounds. Sea gulls and blue cranes prohibited.

Napa.—Deer, July 15 to September 15.

Orange.—Doves, August 1 to February 15.

Riverside.—Male deer, August 1 to September 15; trout, May 1 to July 1.

San Benito.—Male deer, August 1 to October 1.

San Bernardino.—Trout, June 1 to November 1; tree squirrels, limit 5 in one day; doves, August 1 to October 1; wild duck, trout or dove selling prohibited.

San Mateo.—Cottontail and bush rabbit, July 1 to February 1; rail, October 15 to November 16. Rail hunting with boats one hour before or after high tide prohibited. Male deer, August 1 to October 1; trout, limit 100 per day; tree or pine squirrels, prohibited. Song birds protected perpetually.

Santa Barbara.—Male deer, July 15 to September 15.

Santa Clara.—Male deer, July 15 to October 1.

Santa Cruz.—Male deer, August 1 to October 1. All wild birds (other than those recognized as game birds in general law), *except* hawks, owls, bluejays, shrikes, English sparrows and house-finches, are perpetually protected, as are likewise all species of tree squirrels. Black bass cannot be caught before January 1, 1907. Trout limit in one day, 100.

San Luis Obispo.—Deer, July 15 to September 15.

Siskiyou.—Deer, August 15 to October 15.

Sonoma.—Male deer, July 15 to September 1.

Trinity—Male deer, September 15 to October 30.

Tulare.—Trout limit, 10 pounds per day, 6-inch fish; black bass, closed for two years; road-runner killing prohibited.

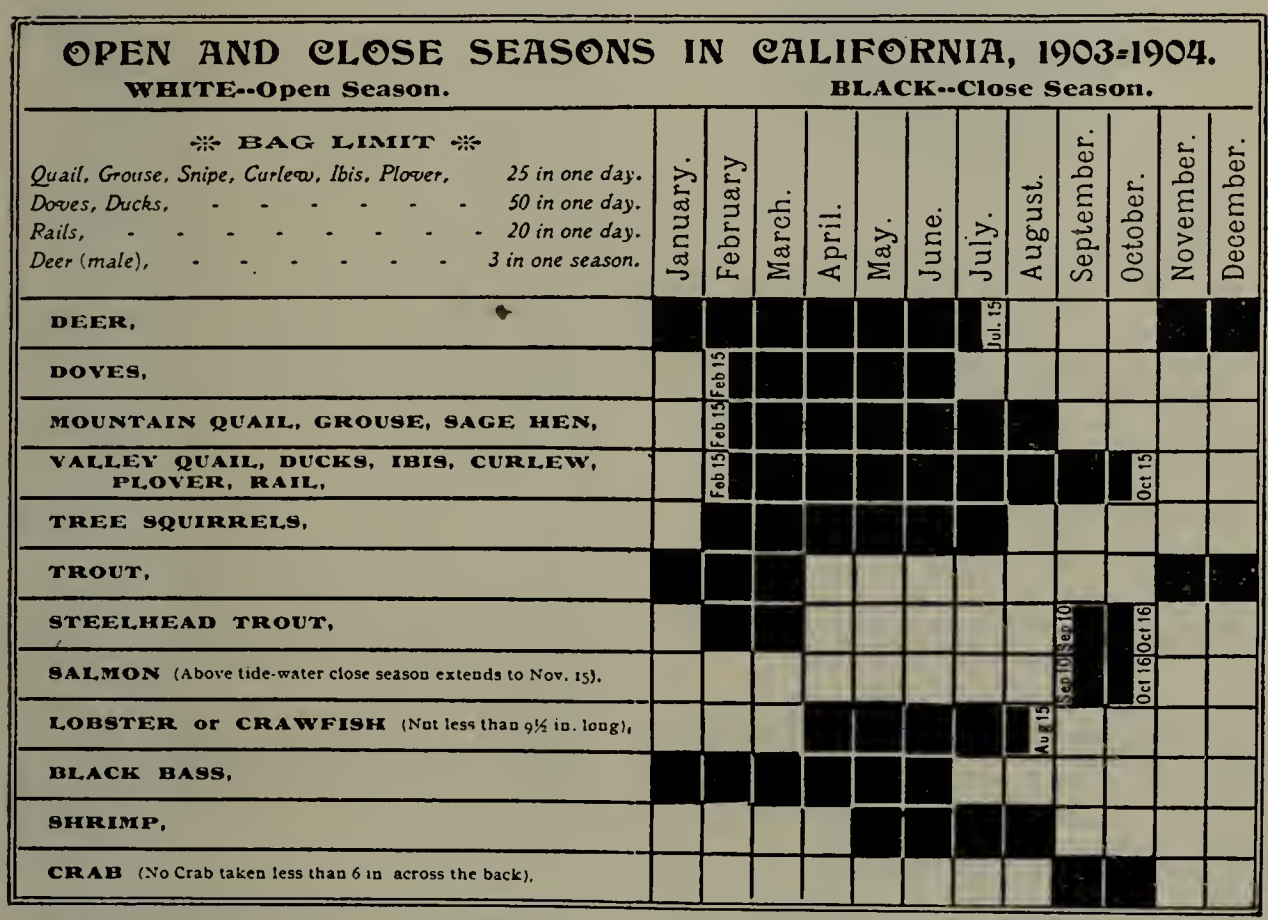
Tuolumne.—Mountain quail, south of ranges 13, 14, 15 and 16 east, township 3 north, and west of townships 1 and 2, north, and township 1 south range 7 east, October 15 to February 15.

Ventura.—Trout, May 1 to November 1; male deer, August 15 to October 1.

Yolo.—Doves, August 1 to February 1; quail, November 1 to January 1; deer, July 15 to September 15.

THE CALIFORNIA GAME LAWS IN BRIEF

(Compiled by Charles A. Vogelsang, Chief Deputy, State Board of Fish Commissioners.)



N. B.--In some counties the OPEN seasons are shorter
Write to County Clerk or District Attorney.

Fine for violation Game Laws, $25 to $500, and imprisonment.
Fine for violation Fish Laws, $20 to $500, and imprisonment.
Smallest fine for using explosives to take any fish, $250, and imprisonment.

WHAT IS ALWAYS UNLAWFUL

TO BUY, SELL, OFFER FOR SALE, BARTER OR TRADE, AT ANY TIME, ANY QUAIL, PHEASANT, GROUSE, SAGE HEN, IBIS, PLOVER, OR ANY DEER MEAT OR DEER SKINS.

To have in possession doe or fawn skins.
To take or kill, at any time, does, fawns, elk or antelope.
To take or kill pheasants, or Bob-White quail.
To run deer with dogs during the close season.
To shoot half-hour before sunrise, or half-hour after sunset.
To trap game of any kind without having first procured *written* authority from the Board of Fish Commissioners.
To take or destroy nests or eggs of game birds.
To ship game in concealed packages, or *without* your name and address.
To *buy* or *sell trout* less than *one-half pound* in weight.
To take, at any time, sturgeon, or female crabs.
To take abalones less than fifteen inches in circumference.
To take trout or black bass, except with hook and line.
To take salmon, shad or striped bass with a net less than seven and one-half inch mesh.
To use a set net.
To take fish, in any manner, within fifty feet of a fishway.
To take, buy, or sell striped bass less than three pounds in weight.
To shoot meadow larks.
To shoot on enclosed land without permission.

President.

H. T. Payne, San Francisco.

Vice-Presidents.

Dr. A. M. Barker, San Jose; J. H. Schumacher, Los Angeles, J. Sub. Johnson, Visalia; H. A. Green, Monterey; J. D. Armstrong, Paso Robles.

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W. W. Richards, San Francisco; J. Sub. Johnson, Visalia; A. R. Jones.

Membership Committee.

S. D. Merk, Paso Robles; W. W. Richards, San Francisco; E. A. Mocker, San Francisco.

Local and County Organization Members.

Name and Location Secretary. Address.

Alturas—R. A. Laird, Sec., Alturas, Cal.
Angels—Walter Tryon, Sec., Angels Camp, Cal.
Arroyo Grande—S. Clevenger, Sec., Arroyo Grande, Cal.
Auburn Fish and Game Club—E. A. Francis, Sec., Auburn, Cal.
Boulder Creek—J. H. Aran, Sec., Boulder Creek, Cal.
Chico—* * * * Sec., Chico.
Cloverdale—C. H. Smith, Sec., Cloverdale, Cal.
Colusa—S. J. Gilmour, Sec., Colusa, Cal.
Covalo—H. W. Schutler, Sec., Covalo.
Deer Creek—Jos. Mitchell, Sec., Hot Springs, Cal.
Fort Bragg—Thos. Bourns, Sec., Fort Bragg, Cal.
Fresno—H. Palmer Black, Sec., Fresno, Cal.
Grass Valley—John Mulroy, Sec., Grass Valley, Cal.
Hollister—Wm. Higby, Sec., Hollister, Cal.
Humboldt—Julius Janssen, Sec., Eureka, Cal.
Jackson—O. H. Reichling, Sec., Jackson, Cal.
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Lakeport—B. F. McIntyre, Sec., Lakeport.
Laytonville—J. G. Dill, Sec., Laytonville, Cal.
Lodi—Greer McDonald, Sec., Lodi, Cal.
Lompoc Game & Fish Protective Ass'n—W. R. Smith, Sec'y, Lompoc.
Los Angeles—L. Herzog, Sec., Los Angeles, Cal.
Madera—Joe Barcroft, Sec., Madera, Cal.
Marysville—R. B. Boyd, Sec., Marysville, Cal.
Mendocino City—O. L. Stanly, Sec., Mendocino City, Cal.
Monterey—C. R. Few, Sec., Monterey, Cal.
Napa—W. West, Sec., Napa, Cal.
Nevada City—Fred C. Brown, Nevada City, Cal.
Oroville—G. T. Graham, Sec., Oroville, Cal.
Oxnard—Roy B. Witman, Sec., Oxnard, Cal.
Paso Robles—T. W. Henry, Sec., Paso Robles, Cal.
Pescadero—C. J. Coburn, Sec., Pescadero, Cal.
Petaluma—Jos. Steiger, Sec., Petaluma, Cal.
Porterville—G. R. Lumley, Sec., Porterville, Cal.
Quincy—T. F. Spooner, Sec., Quincy, Cal.
Red Bluff—W. F. Luning, Sec., Red Bluff, Cal.
Redding—Dr. B. F. Belt, Sec., Redding, Cal.
Redlands—Robt Leith, Sec., Redlands, Cal.
Redwood City—C. Littlejohn, Sec., Redwood City, Cal.
Riverside—Joe Shields, Sec., Riverside, Cal.
Round Valley—H. W. Schutler, Sec., Covalo, Cal.
San Andreas—Will. A. Dower, Sec., San Andreas, Cal.
San Rafael—Mr. Robertson, Sec., San Rafael.
Santa Ana—J. W. Carlyle, Sec., Santa Ana, Cal.
Santa Barbara—E. C. Tallant, Sec., Santa Barbara, Cal.
San Bernardino—F. C. Moore, Sec., San Bernardino, Cal.
Santa Clara County—R. S. Kooser, Sec., San Jose, Cal.
Santa Cruz—Mr. Miller, Sec., Santa Cruz.
San Diego—A. D. Jordan, Sec., San Diego, Cal.
Santa Maria—L. J. Morris, Sec., Santa Maria, Cal.
Santa Rosa—Miles Peerman, Sec., Santa Rosa, Cal.
San Luis Obispo—H. C. Knight, Sec., San Luis Obispo, Cal.
Salinas—J. J. Kelley, Sec., Salinas, Cal.
Sanger—H. C. Coblentz, Sec., Sanger, Cal.
Selma—J. J. Vanderburg, Sec., Selma, Cal.
Siskiyou—W. A. Sharp, Sec., Sisson, Cal.
Santa Paula—Dr. R. L. Poplin, Sec., Santa Paula, Cal.
Sacramento County—A. Hertzel, Sec., Sacramento, Cal.
Sonora—J. A. Van Harlingen, Sec., Sonora, Cal.
Stockton—R. L. Quisenberry, Sec., Stockton, Cal.
Susanville—R. M. Rankin, Sec., Susanville, Cal.
Sutter Creek—L. F. Stinson, Sec., Sutter Creek, Cal.
Three Rivers—F. B. Britten, Sec., Three Rivers, Cal.
Ukiah—Sam D. Paxton, Sec., Ukiah, Cal.
Ventura—M. E. V. Bogart, Sec., Ventura, Cal.
Visalia—Thomas A. Chatten, Sec., Visalia, Cal.
Watsonville—Ed Winkle, Sec., Watsonville, Cal.
Willitts—Chester Ware, Sec., Willitts, Call.
Woodland—W. H. Huston, Sec., Woodland, Cal.
Yreka—F. A. Autenreith, Sec., Yreka, Cal.

Close Seasons for Game in the United States and Canada.

(Date of close season and the first date of open season are given; to find open season, reverse dates.)

	State.	Mammals: Deer.	Elk.	Moose, Caribou.	Antelope.	Squirrel.[1]	Rabbit.	Birds: Quail.	Grouse.	Prairie Chicken.	Wild Turkey.
Northern.	Maine	Dec. 15-Oct. 1[1]		Dec. 1-Oct. 15[14]			Apr. 1-Sept. 1	At all times	Dec. 1-Sept. 10		
	New Hampshire	At all times[1]	At all times	At all times		Jan. 1-Sept. 15	Apr. 1-Oct. 1	Dec. 15-Sept. 15	Dec. 15-Sept. 15		
	Vermont	Nov. 1-Oct. 23		At all times			May 1-Sept. 1	Jan. 1-Sept. 1	Jan. 1-Sept. 1		
	Massachusetts	To Nov. 1, 1908				Mar. 1-Oct. 1	Mar. 1-Oct. 1	Dec. 1-Oct. 1[1]	Dec. 1-Oct. 1		
	Rhode Island	To Feb. 1, 1905				Jan. 1-Oct. 15	Jan. 1-Oct. 15	Dec. 16-Oct. 16	Dec. 16-Oct. 16		
	Connecticut	To June 1, 1911				Dec. 1-Oct. 1	Jan. 1-Oct. 1	Dec. 1-Oct. 1	Dec. 1-Oct. 1		
	New York[1]	Nov. 16-Sept. 1	At all times	At all times	At all times	Dec. 1-Sept. 16	Dec. 16-Sept. 16	Dec. 1-Nov. 1	Dec. 1-Sept. 16		
	Long Island	Exc'pt 4 days Nov.				Jan. 1-Nov. 1	Jan. 1-Nov. 1	Jan. 1-Nov. 1	Jan. 1-Nov. 1		
	New Jersey	To April 14, 1905				Jan. 1-Nov. 10	Jan. 1-Nov. 10	Jan. 1-Nov. 10	Jan. 1-Nov. 10	Jan. 1-Nov. 10	Jan. 1-Nov. 10
	Pennsylvania	Dec. 1-Nov. 1	Dec. 1-Nov. 1			Dec. 16-Oct. 15	Dec. 16-Nov. 1	Dec. 16-Oct. 15	Dec. 16-Oct. 15	Dec. 16-Oct. 15	Dec. 15-Oct. 15
	Delaware						Jan. 1-Nov. 10	Jan. 1-Nov. 15	Jan. 1-Nov. 15		
	Maryland[1]	Local laws				Dec. 1-Sept. 1	Dec. 25-Nov. 1	Dec. 25-Nov. 1	Dec. 25-Nov. 1		Dec. 25-Nov. 1
	Dist. Columbia	Jan. 1-Sept. 1[1]				Feb. 1-Nov. 1	Feb. 1-Nov. 1	Mar. 15-Nov. 1	Dec. 26-Nov. 1	Mar. 15-Sept. 1	Dec. 26-Nov. 1
	Virginia	Jan. 1-Oct. 1						Feb. 1-Nov. 1[20]	Feb. 1-Nov. 1[20]		Feb. 1-Nov. 1[20]
	West Virginia	Dec. 15-Oct. 15				Jan. 1-Sept. 15	Jan. 1-Sept. 15	Dec. 20-Nov. 1	Dec. 15-Oct. 15	Dec. 15-Oct. 15	Dec. 15-Oct. 15
	Kentucky	Mar. 1-Sept. 1				Feb. 1-June 15		Jan. 1-Nov. 15	Jan. 1-Nov. 15		Feb. 1-Sept. 1
	Ohio	Dec. 15-Nov. 10				Sept. 2-Aug. 1	Dec. 2-Nov. 10	Dec. 2-Nov. 10	To Nov. 10, 1904	To Nov. 10, 1904	Dec. 2-Nov. 10
	Michigan	Dec. 1-Nov. 8[1]	To 1911	To 1911		Dec. 1-Oct. 15		Dec. 1-Oct. 30[18]	Dec. 1-Oct. 20[18]	To 1910	To 1910
	Indiana	At all times				Jan. 1-Aug. 1[19]		Jan. 1-Nov. 10	Jan. 1-Nov. 10	Jan. 1-Nov. 10	At all times
	Illinois	To 1913				Jan. 1-July 1		Dec. 20-Nov. 10	To 1907	To 1907	To 1908
	Wisconsin	Dec. 1-Nov. 11[1]				May 1-Sept. 1	May 1-Sept. 1	To Sept. 1, 1905	Dec. 1-Sept. 1	Dec. 1-Sept. 1[1]	
	Minnesota	Dec. 1-Nov. 11	At all times	Dec. 1-Nov. 11				Dec. 15-Oct. 15	Dec. 15-Oct. 15	Nov. 1-Sept. 1	
	Iowa	At all times	At all times			Jan. 1-Sept. 1		Jan. 1-Nov. 1	Jan. 1-Nov. 1	Dec. 1-Sept. 1	Jan. 1-Nov. 1
	Missouri	Jan. 1-Oct. 1						Jan. 1-Nov. 1	Jan. 1-Nov. 1	Jan. 1-Nov. 1	Jan. 1-Nov. 1
	Kansas				To Mar. 13, 1908			Jan. 1-Nov. 15[21]	Oct. 1-Aug. 15	Oct. 1-Aug. 15[21]	
	Nebraska	Nov. 16-Aug. 13	At all times		Nov. 16-Aug. 15			Dec. 1-Nov. 1	Dec. 1-Oct. 1	Dec. 1-Oct. 1	At all times
	South Dakota	Dec. 15-Nov. 15	Dec. 15-Nov. 15		To Jan. 1, 1911			Jan. 1-Sept. 1	Jan. 1-Sept. 1	Jan. 1-Sept. 1	
	North Dakota	Dec. 1-Nov. 10	At all times	At all times	To Jan. 1, 1911			To Sept. 1, 1905	Oct. 15-Sept. 1	Oct. 15-Sept. 1	
	Montana	Dec. 1-Sept. 1	Nov. 1-Sept. 1	At all times	At all times			At all times	Dec. 1-Aug. 15	Dec. 1-Aug. 15	
	Wyoming	Nov. 15-Sept. 15	Nov. 15-Sept. 15	To Sept. 15, 1912[21]	Nov. 15-Sept. 15			At all times	Oct. 15-July 15	Dec. 1-Sept. 1	
	Colorado	Oct. 1-Sept. 15	To 1907		To 1907			To Oct. 1, 1909[15]	Oct. 21-Sept. 1	Oct. 21-Sept. 1	To 1907
Southern.	North Carolina[1]	Jan. 1-Oct. 1				Local laws		Mar. 15-Nov. 1			Mar. 15-Nov. 1
	South Carolina	Feb. 1-Sept. 1[1]						Apr. 1-Nov. 1	Apr. 1-Nov. 1		Apr. 1-Nov. 1
	Georgia[4]	Jan. 1-Sept. 1						Mar. 15-Nov. 1	Mar. 15-Nov. 1		Mar. 15-Nov. 1
	Florida	Feb. 1-Nov. 1						Mar. 1-Nov. 1			Mar. 1-Nov. 1
	Alabama[4]	Jan. 1-Sept. 1				Feb. 2-July 1		Mar. 2-Nov. 15	Mar. 2-Nov. 15	Mar. 2-Nov. 15	Mar. 2-Nov. 15
	Mississippi	Mar. 1-Sept. 15						May 1-Oct. 1			May 1-Oct. 1
	Tennessee	Dec. 15-Oct. 1				Mar. 1-June 1		Mar. 1-Nov. 1	Mar. 1-Nov. 1		Mar. 1. Nov. 1
	Arkansas	Feb. 1-Sept. 1[1]						Feb. 15-Nov. 1[1]		Dec. 1-Oct. 31	May 1-Sept. 1
	Louisiana	Apr. 1-Nov. 1					Apr. 1-Nov. 1	Apr. 1-Nov. 1	Mar. 1. Nov. 1	Mar. 1-Nov. 1	Apr. 1-Nov. 1
	Texas	Jan. 1-Nov. 1			To July 1, 1908			Feb. 1-Nov. 1		Feb. 1-Nov. 1	Feb. 1-Nov. 1
	Oklahoma	At all times			At all times			Feb. 1-Oct. 15	At all times	Jan. 1-Sept. 1	Jan. 1-Sept. 1
	New Mexico	Jan. 1-Nov. 1	To Mar. 7, 1905		To Mar. 7, 1905			Mar. 1-Oct. 1	Jan. 1-Oct. 1	Jan. 1-Oct. 1	Jan. 1-Oct. 1
	Arizona	Nov. 1-Sept. 15	At all times		To Jan. 1, 1906			Mar. 1-Oct. 15	Mar. 1-Oct. 15		Nov. 1-Sept. 15
Pacific.	California[1]	Nov. 1-July 15	At all times		At all times	Feb. 1-Aug. 1		Feb. 15-Oct. 15[1]	Feb. 15-Sept. 1		
	Nevada	Nov. 15-Sept. 15	At all times	At all times[19]	Nov. 15-Sept. 15			Mar. 1-Sept. 15	Mar. 1-Sept. 15	Mar. 1-Sept. 15	
	Utah	Nov. 1-Sept. 1	At all times		At all times			At all times[1]	Dec. 1-Aug. 10	Dec. 1-Aug. 15	
	Idaho	Jan. 1-Sept. 1	Jan. 1-Sept. 1	At all times	Jan. 1-Sept. 1			Dec. 1-Nov. 1	Dec. 1-Aug. 15	Dec. 1-Aug. 15	
	Washington	Dec. 15-Sept. 15	Nov. 1-Sept. 15	Nov. 1-Sept. 15	Nov. 1-Sept. 15			Jan. 1-Oct. 1[11]	Jan. 1-Sept. 1	Jan. 1-Sept. 1[1]	
	Oregon	Nov. 1-July 15[1]	To Sept. 15, 1904	Nov. 1-July 15[1]	Nov. 1-July 15[1]	Jan. 1-Oct. 1		Dec. 1-Oct. 1	Dec. 1-Oct. 1	Dec. 1-Oct. 1	To Oct. 1, 1905
	Alaska	Dec. 16-Sept. 1		Nov. 1-Sept. 1[1]				Dec. 10-Sept. 1			
	Hawaii							Mar. 1-Sept. 16			
Canada.	British Columbia	Dec. 15-Sept. 1	Jan. 1-Sept. 1	Jan. 1-Sept. 1			Jan. 1-Sept. 1	At all times	Jan. 1-Sept. 1	Jan. 1-Sept. 1	
	N.W. Territories[16]	Dec. 15-Nov. 1	Dec. 15-Nov. 1	Dec. 15-Nov. 1	Dec. 15-Nov. 1				Dec. 15-Sept. 15	Dec. 15-Sept. 15	
	Manitoba	Dec. 15-Nov. 15	Dec. 15-Nov. 15	Dec. 15-Nov. 15	Dec. 15-Nov. 15			Jan. 1-Aug. 1	Nov. 15-Sept. 15	Nov. 15-Sept. 15	
	Ontario	Nov. 10-Nov. 1	At all times	Nov. 16-Oct. 16[22]		Dec. 16-Sept. 15	Dec. 16-Sept. 15	Dec. 1-Nov. 1	Dec. 16-Sept. 15	To Sept. 15, 1903	Dec. 1-Nov. 1
	Quebec	Jan. 1-Sept. 1[1]		Jan. 1-Sept. 1[1]			Feb. 1-Nov. 1[1]		Dec. 15-Sept. 1[1]		
	New Brunswick	Dec. 1-Sept. 15		Dec. 1-Sept. 15[1]					To May 9, 1905		
	Nova Scotia	To Oct. 1, 1905		Jan. 1-Sept. 15[22]			Feb. 1-Oct. 15		Dec. 1-Oct. 1[1]		
	Newfoundland		To Jan. 1, 1919	Feb. 1-Oct. 21[23]			Mar. 1-Sept. 16		Jan. 12-Sept. 16		

	State.	Birds: Dove.	Introduced Pheasant.	Plover.	Snipe.	Woodcock.	Rail.	Duck.	Goose, Swan.	Protected in a few States only.	
Northern.	Maine	At all times	To Mar. 22, 1911	May 1-Aug. 1	May 1-Aug. 1	Dec. 1-Sept. 15		Dec. 1-Sept. 1[1]		Ptarmigan.	
	New Hampshire	At all times	To Sept. 15, 1903	Feb. 1-Aug. 1[1]	Dec. 15-Sept. 15[1]	Dec. 15-Sept. 15	Feb. 1-Aug. 1	Feb. 1-Aug. 1[1]			
	Vermont	At all times	Nov. 20-Oct. 1	Jan. 1-Sept. 1[1]	Jan. 1-Sept. 1	Jan. 1-Sept. 1		Jan. 1-Sept. 1	Jan. 1-Sept. 1[19]		
	Massachusetts	At all times	To Feb. 13, 1905	Mar. 1-July 15	Mar. 1-July 15	Mar. 1-Oct. 1	Mar. 1-July 15	Mar. 1-Sept. 1[1]			
	Rhode Island	At all times	To Oct. 1, 1905			Dec. 10-Oct. 15		Apr. 1-Aug. 15[1]		Colorado	At all times
	Connecticut	At all times	To June 1, 1906	Apr. 1-Sept. 1	May 1-Aug. 1	Dec. 1-Oct. 1	Apr. 1-Sept. 1[1]	May 1-Sept. 1	May 1-Sept. 1	Washington	Jan. 1-Sept. 1[1]
	New York[1]	At all times	To 1905	May 1-Sept. 1	May 1-Sept. 1	Dec. 1-Sept. 16	May 1-Sept. 1	Jan. 1-Sept. 16	Jan. 1-Sept. 10	Alaska	Dec. 16-Sept. 1
	Long Island	At all times	Jan. 1-Nov. 10	Jan. 1-July 1	Jan. 1-July 1	Jan. 1-Aug. 1	Jan. 1-July 1	Jan. 1-Oct. 1	Jan. 1-Oct. 1	Quebec	Feb. 1-Nov. 1
	New Jersey	At all times	Jan. 1-Nov. 10	Jan. 1-July 15[1]	Jan. 1-Sept. 1	Jan. 1-Oct. 1[1]	Jan. 1-Sept. 1	May 1-Oct. 1	May 1-Oct. 1	Nova Scotia	At all times
	Pennsylvania		Dec. 16-Oct. 15	Jan. 1-July 15[1]		Dec. 16-Oct. 15[1]	Dec. 1-Sept. 1	May 1-Sept. 1	May 1-Sept. 1	Newfoundland	Jan. 12-Sept. 16
	Delaware	At all times					Feb. 1-Sept. 1	Apr. 15-Oct. 1[1]	Apr. 15-Oct. 1		
	Maryland[1]	Dec. 25-Aug. 15	Dec. 25-Nov. 1	May 1-Aug. 15	May 1-Aug. 15	Dec. 25-Nov. 1[1]	Nov. 1-Sept. 1	Apr. 10-Nov. 1	Apr. 10-Nov. 1		
	Dist. Columbia	At all times		Apr. 1-Sept. 1	Apr. 1-Sept. 1	Jan. 1-July 1	Feb. 1-Sept. 1	Apr. 1-Sept. 1[19]	Apr. 1-Sept. 1[19]	Sage Hen.	
	Virginia	At all times	Local laws	Jan. 1-July 20	Jan. 1-July 20	Feb. 1-Nov. 1[20]	Jan. 1-July 20[19]	Apr. 1-Oct. 15	Apr. 1-Oct. 15		
	West Virginia	At all times		Jan. 1-Sept. 1[1]	July 1-Mar. 1	Nov. 2-July 15		Apr. 1-Oct. 1	Apr. 1-Oct. 1[19]		
	Kentucky	Feb. 1-Aug. 1				Feb. 1-June 20		Apr. 1-Aug. 15	Apr. 1-Aug. 15[19]		
	Ohio	At all times	To Nov. 10, 1904	Dec. 2-Nov. 10[19]	Dec. 2-Nov. 10[19]	Sept. 2-Aug. 1	Dec. 2-Nov. 10[19]	Dec. 16-Sept. 1[1]	Dec. 10-Sept. 1[1]		
	Michigan	At all times	To 1910	Dec. 1-Oct. 1	Dec. 1-Oct. 1[18]	Dec. 1-Oct. 20[18]		Dec. 1-Oct. 1[18]	Dec. 1-Oct. 1[18]	Nebraska	Dec. 1-Oct. 1
	Indiana	At all times	At all times			Jan. 1-Nov. 10[19]		Apr. 15-Sept. 1[19]	Apr. 15-Sept. 1[19]	Montana	Dec. 15-Aug. 1
	Illinois	Dec. 1-Aug. 1	To 1908	May 1-Sept. 1	May 1-Sept. 1	Dec. 1-Aug. 1		Apr. 15-Sept. 1	Apr. 15-Sept. 1	Wyoming	Oct. 15-July 15
	Wisconsin	At all times	To Sept. 1, 1905[8]	Dec. 1-Sept. 1	Dec. 1-Sept. 1	Dec. 1-Sept. 1		Jan. 1-Sept. 1[19]	May 1-Sept. 1[19]	Colorado	Oct. 21-Sept. 1
	Minnesota	Nov. 1-Sept. 1	At all times	Nov. 1-Sept. 1[19]	Nov. 1-Sept. 1	Nov. 1-Sept. 1		Dec. 1-Sept. 1	Dec. 1-Sept. 1	California	Feb. 15-Sept. 1
	Iowa	At all times		Apr. 15-Sept. 1	Apr. 15-Sept. 1	Jan. 1-July 10	Apr. 15-Sept. 1	Apr. 15-Sept. 1	Apr. 15-Sept. 1[18]	Nevada	Feb. 16-July 15
	Missouri	Jan. 1-Aug. 1	Jan. 1-Nov. 1	Jan. 1-Aug. 1		Jan. 1-Aug. 1		Apr. 1-Oct. 1		Utah	Dec. 1-Aug. 15
	Kansas	Sept. 15-Aug. 1	To Feb. 28, 1907	Sept. 15-July 15				Apr. 23-Sept. 1	Apr. 23-Sept. 1[19]	Idaho	Dec. 1-July 15
	Nebraska	Oct. 31-Apr. 15	At all times	Oct. 31-Apr. 15	Apr. 16-Sept. 1			Apr. 16-Sept. 1	Apr. 16-Sept. 1	Washington	Jan. 1-Sept. 1[1]
	South Dakota			May 15-Sept. 1		Jan. 1-Sept. 1		May 1-Sept. 1	May 1-Sept. 1[19]		
	North Dakota		To Sept. 1, 1905			Oct. 15-Sept. 1		May 1-Sept. 1	May 1-Sept. 1[19]	Reeddird.	
	Montana	At all times	At all times					Jan. 1-Sept. 1	Jan. 1-Sept. 1		
	Wyoming	At all times	To Sept. 1, 1906	May 1-Sept. 1	May 1-Sept. 1		May 1-Sept. 1	May 1-Sept. 1	May 1-Sept. 1		
	Colorado	Sept. 1-Aug. 1	At all times		Apr. 16-Sept. 10[7]			Apr. 16-Sept. 10[7]	Apr. 16-Sept. 10[7]		
Southern.	North Carolina[1]	Mar. 15-Nov. 1			Local laws	Local laws		Local laws	Local laws	New Jersey	Jan. 1-Sept. 1
	South Carolina	Mar. 1-Aug. 1	To Dec. 22, 1903			Apr. 1-Nov. 1				Pennsylvania	Dec. 1-Sept. 1
	Georgia[4]	Mar. 15-Aug. 15	To Nov. 30, 1903					Feb. 1-Sept. 1[1]		Delaware	Feb. 1-Aug. 25
	Florida							Apr. 1-Oct. 1[1]		Maryland	Nov. 1-Sept. 1[1]
	Alabama	Mar. 1-Aug. 1	To Feb. 8, 1904			Mar. 2-Nov. 15				Dist. Columbia	Feb. 1-Sept. 1
	Mississippi	Mar. 1-Sept. 15									
	Tennessee	Mar. 1-Aug. 1	Jan. 1-Dec. 1	Apr. 15-Oct. 1	Apr. 15-Oct. 1	Apr. 15-Oct. 1	Apr. 15-Oct. 1	Apr. 15-Oct. 1[19]	Apr. 15-Oct. 1	Curlew.	
	Arkansas	At all times									
	Louisiana	Mar. 1-July 1		Oct. 1-Aug. 1[1]				Apr. 1-Sept. 1[1]			
	Texas	Feb. 1-Sept. 1	To July 1, 1908							New Jersey	Jan. 1-July 15
	Oklahoma	Jan. 1-Aug. 1	To Jan. 1, 1904	Jan. 1-Aug. 1						New York	May 1-Sept. 1[1]
	New Mexico		To Mar. 14, 1906							Virginia	Jan. 1-July 20
	Arizona		Mar. 1-Oct. 15		Mar. 1-Oct. 15		Mar. 1-Oct. 15			South Dakota	May 15-Sept. 1
										Nebraska	At all times
Pacific.	California[1]	Feb. 15-July 1	At all times	Feb. 15-Oct. 15			Feb. 15-Oct. 15	Feb. 15-Oct. 15		Wyoming	May 1-Sept. 1
	Nevada	Nov. 2-July 15	To Sept. 1, 1906	Mar. 1-Sept. 15	Mar. 1-Sept. 15	Mar. 1-Sept. 15		Mar. 1-Sept. 15	Mar. 16-Sept. 1[19]	Colorado	Apr. 16-Sept. 10[7]
	Utah	Dec. 1-Aug. 15	At all times		Mar. 15-Feb. 15[19]			Mar. 15-Feb. 15[19]	Mar. 15-Feb. 15[19]	Tennessee	Apr. 15-Oct. 1
	Idaho	July 15-Feb. 15	To Mar. 11, 1907	July 15-Feb. 15	July 15-Feb. 15			Feb. 15-Sept. 15	Feb. 15-Sept. 15	Caltornia	Feb. 15-Oct. 15
	Washington	At all times	To Oct. 15, 1906[1]	Mar. 1-Aug. 15	Mar. 1-Sept. 1		Mar. 1-Aug. 15	Mar. 1-Sept. 1	Mar. 1-Sept. 1	Nevada	Mar. 1-Sept. 15
	Oregon	At all times	To Oct. 1, 1905[1, 6]	Jan. 1-Aug. 1[1]		To Oct. 1, 1905	Jan. 1-Aug. 1	Mar. 1-Sept. 1[1]	Mar. 1-Sept. 1[1]	Hawaii	May 1-Sept. 10
	Alaska	At all times		Dec. 16-Sept. 1	Dec. 16-Sept. 1			Dec. 16-Sept. 1	Dec. 16-Sept. 1	Quebec	Feb. 1-Sept. 1
	Hawaii	Feb. 1-July 1	To 1907	May 1-Sept. 15[1]	May 1-Sept. 16			Feb. 1-Sept. 16[1]	Feb. 1-Sept. 16	Newfoundland	Jan. 12-Aug. 21
										Crane.	
Canada.	British Columbia		At all times	Mar. 1-Sept. 1				Mar. 1-Sept. 1			
	N.W. Territories[16]				May 5-Aug. 23			May 5-Aug. 23			
	Manitoba	At all times		Jan. 1-Aug. 1[1]	Jan. 1-Aug. 1	Jan. 1-Aug. 1		Jan. 1-Sept. 1		Nebraska	Apr. 16-Sept. 1
	Ontario		To Sept. 15, 1905	Dec. 16-Sept. 15	Dec. 16-Sept. 15	Dec. 16-Sept. 15	Dec. 10-Sept. 15	Dec. 16-Sept. 1	May 1-Sept. 15	South Dakota	May 1-Sept. 1
	Quebec			Feb. 1-Sept. 1	Feb. 1-Sept. 1	Feb. 1-Sept. 1		Mar. 1-Sept. 1[1]		North Dakota	May 1-Sept. 1
	New Brunswick		At all times		Dec. 2-Sept. 1	Dec. 2-Sept. 1		Dec. 2-Sept. 1[1]	Dec. 2-Sept. 1[1]	Colorado	Apr. 16-Sept. 10[7]
	Nova Scotia		At all times		Mar. 1-Sept. 1[1]	Mar. 1-Sept. 1[1]		Mar. 1-Sept. 1[1]		Nevada	Mar. 1-Sept. 15
	Newfoundland			Jan. 12-Aug. 21	Jan. 12-Aug. 21			Jan. 12-Aug. 21	Jan. 12-Aug. 21[23]	Washington	Mar. 1-Sept. 1

[1] Certain local exceptions. [2] Certain species. [3] Except month of July. [4] Except Mar. 15-Apr. 21. [5] Except month of April. [6] Sale. [7] Except month of March. [8] Upland plover only. [9] Altitudes above 7,000 feet, May 1-Sept. 15. [10] Except unorganized Territories, in which the seasons are as follows: Deer, elk, caribou, mountain sheep, mountain goat, Apr. 1-July 15 and Oct. 1-Dec. 1, musk ox, Mar. 20-Oct. 15; grouse, prairie chicken, Jan. 1-Sept. 1, duck, goose, swan, Jan. 15-Sept. 1. [11] Except July 16-Oct. 1. [12] Also Oct. 1-Nov. 10, unless permit be obtained. [13] Except certain species, Mar. 2-Apr. 15. [14] Caribou protected in Maine to Oct. 15, 1905. [15] Moose only. [16] Goose only. [17] Swan. North Dakota, to Sept. 1, 1905. Nevada, Wisconsin, and Wyoming at all times. [18] Caribou only. [19] Under the old law, which still stands. [20] Except Aug. 1-Oct. 1, caribou only; moose protected to Jan. 1, 1912. [21] Except Mar. 10-Apr. 21. [22] Except south of Canadian Pacific R. R. between Mattawa and Port Arthur, Nov. 16-Nov. 1. [23] Except crested quail, to 1907. [24] Except sacs. [25] Except July, Aug., and Sept. [26] Except Oct. 1-Dec. 15. [27] Except April 10-25. [28] Caribou protected in Nova Scotia to Oct. 1, 1905. [29] Swan only. [30] Except west of Blue Ridge, Jan. 1-Nov. 1. [31] In twenty counties to Mar. 18, 1906. [32] Except wood duck, Mar. 1-Aug. 1.

[1] Laws for 1903 not yet received.

NATURAL HISTORY

THE SPECIAL SENSES IN ANIMALS.

By Dr. R. W. Shufeldt.

(*Concluded from May number.*)

PASSING to the sense of smell, we find that where the animal possesses it, it is invariably closely associated with the sense of taste. In the higher vertebrata the two senses are in a way dependent, and as tasting consists in testing dissolved substances, and smelling vaporized ones, the powers of the latter are frequently co-related to the former; for as food is tasted before swallowing in order to detect its suitableness, so smell aids often in this detection, and to the same end. The organs of smell, however, are employed for many other purposes, all quite independent of tasting food. Among some of the lower groups it is the sole means of insuring the mingling together of the sexes when the mating desire seizes them. By it, too, enemies can be avoided, and the whereabouts of food detected, and the danger or the reverse of the medium, as air or water, in which the animals moves and lives. Commonly the organs of smell are in the head, but by no means invariably so; but in any event, for an animal to smell anything the substance must be most minutely divided or actually in a gaseous or vaporized state. When thus constituted, it readily affects the simple terminal nerve endings which are located in either pitlets or elevated *papillæ*. In the lower forms of life the sense of smell is very feebly developed, as, for example, in oysters, starfishes and worms. With creatures of such groups, the sense of taste largely supplants that of smell, but in the case of other invertebrata, and especially in some insects, the powers of smell are very acute, indeed more highly developed than even those of sight, hearing or taste. Insects, as a rule, have the organs of smell placed in the pair of the so-called "feelers" (antennæ) that are seen springing from the head in any species of this class. Thousands of cases are known of the sharpness of this sense in insects; it is thus swarms of flies are drawn to butcher shops, to carrion in which they lay their eggs, and to other quarters that attract them. "In the insectary at Cornell University," says Dr. David Starr Jordan, "a few years ago, a few females of the beautiful promethea moth (*Callosamia promethea*) were inclosed in a box, which was kept inside the insectary building. No males had been seen about the insectary nor in its immediate vicinity, although they had been sought for by collectors. A few hours after the beginning of the captivity of the female moths there were forty male prometheas fluttering about over the glass roof of the insectary. They could not see the females, and yet had discovered their presence in the building. The discovery was undoubtedly made by the sense of smell. These moths have very elaborately developed antennæ (see figure), finely branched or feath-

Fig. 1. A male promethea moth, showing large antennae. Photo from life, by the author.

ered, affording opportunity for the existence of very many smelling-pits" (Animal Life, p. 231).

All dogs are endowed with a keen sense of smell, especially pointers, setters, hounds, and others trained for the chase or for hunting purposes. Among men, savages possess the most highly developed sense of smell, and for the reason that it is useful to them. On the other hand, people who have lived in great cities all their lives have this sense much blunted and far less keen.

In a certain proportion of animals only is the sense of sight of any paramount importance. It is essentially so in the vast majority of the vertebrata, though there are many exceptions to it, either where it is entirely absent or else greatly aborted. Blind fish of caves, moles and some of the deep-sea fishes are examples that I have in mind. The loss of the eyes here is a matter of degeneration and gradual limitation of use. Many eyeless creatures in the world are yet sensitive to light and possess some means of detecting its presence, yet they are quite unable to see. In fact, when eyes first appear in forms as low in the scale as worms and some marine forms, they have not the power of sight to the extent of appreciating objects, but merely to detect the difference between dark and light, between shadow and sunshine. Such eyes are simple skin-cells charged with a peculiar pigment, and they have received the name of "eyespots." Moving shadows often indicate to these lowly animals the presence of some danger or other, and in some instances permits them to escape it. To this extent such sightless, primitive eyes are useful. They become still more so when, as in some more specialized forms, a rudimentary lens develops in connection with the organ. The presence of a lens means concentration of sun or other light rays, so that the distinction between light and darkness is several degrees more acute and certain.

Through such simple morphological contrivances as these we gradually pass up to the most complex eyes possessed by animals of any kind, such, for instance, as the eye in man. Here, as is well known, we have a most perfected living anatomical physical instrument possible, not only having the power to form an image but to carry that perception to the brain. A description of the eye

Fig. 2. Dragon Fly, showing large compound eye (c. e.). Photographed from life by the author.

in any of the higher animals wherein it is present in its most perfected state would afford material for quite a sizable book, so it can be but briefly noted here, that the essential parts of such an eye, apart from the optical accessories, consist in the lens that can adjust itself to distances, and which receives through a pupil the rays coming from without. These are focussed upon the retina, a thin, complex nerve-tissue at the back of the eyeball, it in a way being an expansion of the optic nerve, a large nerve that carries the retinal image to the brain, where all objects seen by such an eye are recognized or appreciated, and the individual governs himself accordingly, and according to his training, knowledge and education. Just exactly how the retinal images are transmitted to the brain by the optic nerve, where they are sensed as visual images, is not known. It is probable that such other animals as eagles, hawks, deer, and many others, have sight in a more perfected condition than we find it in man, that is, for certain kinds of sight and quickness of perception. But I am of the opinion that the eye can be educated just as any other organ can, or any of the other senses. It can become very skilled in the differentiation of the various shades of color, the use of instruments of precision, the discrimination of microscopic objects, and similar optical requirements. Some of the most

Fig. 3. Grasshopper with ear in the side of its body. t, Location of the tympanum. Photographed from life by the author. Reduced.

extraordinary eyes are seen in insects and among the *crustacea*. They possess what are known as compound eyes, in addition to the simpler ones of numerous species of insects. Compound eyes are made up of a number of simple ones ranging all the way from a few (ants) to upward of 30,000 (some *coleoptera*). These may well be seen in the common fly by the use of a lens of moderate power. They make up nearly the entire head of the insect, appearing upon it as hemispherical, highly colored bodies of great beauty. Each of these eye-elements has its own lens and forms its own image, the latter being, in the case of any single eye-element, but a very small part of the object looked at. Hence such eyes combine to produce what is accomplished by the single eye of a mammal. The thousands of beautiful little convex facettes on the semi-globular eye of the house fly are the outer lenses of the individual eye-elements, the latter making up the entire organ of sight.

Finally, we must briefly consider the sense of hearing, or audition, and its study is fully as interesting as the other senses just treated. In a great many animals the auditory organ is called the ear, and in all its function is the perception or appreciation of certain vibratory movements of bodies resulting in sound productions. These "sound waves," as they are termed, in reaching the organ of hearing stimulate and set in motion certain parts of it, which stimulation is transmitted to the auditory nerve and by it to the brain, where it is sensed as "sound." This appears to be very simple, but the ear in man and other highly specialized animals is a wonderfully complex anatomical and physiological mechanism and contrivance. Air and water are the usual media for the transmission of the sound waves to the ears or auditory sacs of animals; either element alone, or both in conjunction. In the case of the human ear there is a lmit to the appreciation of the transmitted vibrations; for instance, if the vibrating object only vibrates sixteen times in a second the sound can not be appreciated by the auditory apparatus, nor can it if the vibrations exceed forty thousand per second.

In the vast majority of animal forms, especially in those not high in the scale, the organ for the appreciation of sound consists simply of a small sac containing a liquid in which we find the so-called "otoliths," minute subspherical bodies of great hardness and density. Nerve cells line these sacs, and vibratile *cilia* or hairs spring from them. Crayfish, worms, mussels and other more or

Fig. 4. Right lateral view of bullfrog (Rana catesbiana), showing large, exposed subcircular ear-drum or tympanum (t). Photo from life by the author, and considerably reduced.

less lowly forms possess auditory organs of this general nature, and in certain crustaceans they are to be found in the proximate segments of the minor feelers or *antennæ*, and here, too, the inside lining of the sac supports a growth of minute hairs. These hairs are stimulated by the sound waves, which stimulation is transmitted through certain nerves to the brain. This arrangement has been fully described by Huxley for the common crayfish.

Insects of various kinds have some most peculiar as well as interesting modifications of the organ of hearing. Crickets have their auditory organs in their forelegs, while the locusts and grasshoppers have them at the sides of the first abdominal segment of the body. "Certain other insects," says Dr. Jordan, "as the mosquitoes and other midges or gnats, undoubtedly hear by means of numerous delicate hairs borne on the *antennæ*. The male mosquitoes have many hundreds of these long, fine hairs, and on the sounding of a tuning-fork these hairs have been observed to vibrate strongly. In the base of each antenna there is a most elaborate organ, composed of fine chitinous rods, and accompanying nerves and nerve cells whose function it is to take up and transmit through the auditory nerve to the brain the stimuli received from the external auditory hairs" (Animal Life, pp. 234, 235).

The *amphioxus*, lowest of all the known vertebrates, has no known auditory organ, even in the adult specimens. The otoliths mentioned above are large in some fishes, and they may easily be obtained out of the head of a boiled cod, in which fish they are fully the size of a small almond. They are glistening white, with finely and roundly serrated peripheries. Their function is in all animals to assist the vibratory fluid in its action on the sensory cells of the lining of the auditory sac. I have elsewhere described them for *Amia calva* and other fishes.

HIS SENSES ARE ALL INTACT.

PHYSICAL CULTURE

Conducted by A. T. Noe, M. D.

I SHALL suspend the regular article upon mental work and devote a little time to the ladies. I have been requested to give the proper exercises for women, and as so many questions have been asked I shall try to answer some of them, if possible, but the "eternal question" is sometimes hard to answer.

As the "fat lady" seems to be the most anxious for information, so with all due respect to her I will endeavor to satisfy her first for weighty reasons. Most heavy women feel so uncomfortable because they look so stout. They do not worry over the condition that produce their excessive weight; they only desire to look well, with no fear of the dangerous physical condition their overplus of flesh indicates. Now, to be very frank, I do not think it is possible to reduce abnormal flesh by exercise alone. There must be a certain amount of diet also, as nine cases out of ten—in fact, I may say that nine and a half cases—of superabundant flesh are caused by an oversupply of food substances in the body. This is very hard for my lady to acknowledge, and the prospect of giving up her sweets, teas, and rich pastries, is apt to cause severe displeasure on her part. Nevertheless, if you desire to become normal you must give up these things, and stop making an upholstery shop of yourself.

I find most stout women are very fond of bread and potatoes. Now these two things are disastrous to the one who wishes to be thinner. Potatoes are worthless to a person that is inclined to be fleshy and they simply pile up waste matter which only increases the lymphatic pressure and produce fat. As for white bread, it is mostly starch and is a rapid flesh producer. The only bread that should ever be eaten is whole wheat bread, and fat people should eat it toasted. I do not mean to say that you must never touch white bread. I know it is very nice; so are potatoes; but if your desire is to get slender, you must not indulge in these things.

I think the reason most stout women look so badly is because they stand so out of plumb. Lack of poise only makes the stomach and bowels the more prominent, and, of course, this adds to the stout appearance. I do not know of a more valuable exercise for improving the body than correct poise; it is really wonderful in reducing the size of the abdomen. When the body is perfectly poised the chest is drawn up, and the abdomen up and back; this necessarily will reduce the size and aggressiveness. The very fact that the muscles are contracted upon themselves reduces the lymphatic pressure, thus diminishing the fat which surrounds that part of the body, and at the same time developing much strength and tonicity in the muscles. Of course, to reduce the size of the abdomen to any great extent it is absolutely necessary to avoid fat-producing foods, or in fact food of any kind in large quantities. Nature shuns the abnormal and is ever trying to adjust and reform to her original plans; so if you give her half a chance she will do her part in helping you to overcome the very unpleasant conditions excessive weight produces.

Most fat women are lazy about trying to help themselves. They don't like to take any more trouble than they can help, and somewhat resent the efforts of their physician to reduce them. They generally refuse to be systematic in their exercising—and spasmodic exercising is mere waste of time! You may stand poised for five minutes or ten in the day and then out of poise the rest of the day, or perhaps not repeat the exercise for several days, and you are simply

wasting your time. It is the steady, regular daily repetition of the exercise that will quickly and surely reduce your abdomen. Another thing: you must watch yourself closely and every time you find yourself out of poise you must stand correctly; in this manner correct position will become a habit with you, and will so much improve your looks that you will wonder how you could ever stand the other way.

Deep breathing is a very potent remedy in overcoming too much flesh; fill the lungs full as possible many times a day. Raise the chest to its highest capacity and expand the whole body with the effort. Slowly raise the body to tip of toes and slowly lower it while you inhale and exhale; this is excellent for gaining control of the balance of the body. I also greatly recommend the stomach pumping exercise given in the May number of last year. This exercise is invaluable for reducing the size of the abdomen and will work marvels in strengthening the muscles so they can hold themselves up. The arm exercises given in the August and September numbers of last year and the leg exercises in the November number, 1903, will be found excellent for reducing those parts to normal size. For the double chin, the head and neck exercises in last March's number are a specific.

The accompanying pictures are in illustration of the average fat woman's position in standing, and the contrast of the same model standing correctly. Figure 38 shows a woman standing with all the weight on her heels, her abdomen protruding, chest lax and down, her whole position ungraceful and out of poise as possible. In this mode of holding the body the organs are all thrown out of place and of course become inactive. This causes the fat to gather around them, producing the "pot-stomach" so dreaded by large women. Another thing: standing in this position makes trouble for the heart, as it forces it to work harder than it should and is the cause of much functional difficulty in that organ.

38. 39. 40.

Contrast figure 38 with the following pictures, figures 39 and 40. Note the entirely

different appearance of the same model. Here all the weight of the body is where it belongs, resting on the balls of the feet. In this correct poise there is no strain nor jar anywhere. The abdomen is held well back, the chest well up, and every line gives evidence of ease and comfort. While this lady is far from being thin, she looks very much better than thinner women who stand out of plumb.

It will be easily seen that in order to overcome defects of position, patience and persistence are most necessary; for as it has taken some time to acquire the bad habits of incorrect poise, so it will take some time to change the habit and teach yourself correct poise. But once you have gained the habit of correct poise, it will become second nature to you and it will then be uncomfortable for you to stand otherwise.

There is no exercise so beneficial as walking, if it is properly done. But when a woman walks on her heels, jarring every nerve in her body, it is no wonder that most women dread to walk even a short distance. The heels were not made to walk on, but merely as a balance to the lever of the foot. The balls of the feet are so constructed as to bear weight, and only when the body rests its weight upon them is it in proper position. When you walk, the body should sway to and fro without jolting; this is impossible when the heel hits the ground first; as the heels are closely connected with the whole nervous system through the sciatic nerve, every time you strike the pavement with your heels you jar the whole nervous system. But when you walk on the balls of the feet there is no sudden shock at every step, no strain upon the nerves, and you can walk miles without fatigue.

Exercises for poise, walking and standing, will be found in the June, 1903, number, and these exercises, carefully practiced, will surely give the best results in flesh reducing, and are the greatest aids to grace and beauty that I know of.

The diet question is one that makes the most trouble for the lady who wishes to grow slender. I do not think it is such a dreadful thing to face. A little common sense should be the best guide in the diet matter, with, of course, some self-control. When you know that certain foods are fat-producers, and that to be so fat is a dangerous state of affairs, I do not think it should be hard to give up that which is hurtful. Eating is quite largely a question of habit; while it is very necessary to supply the body with proper materials with which to keep life going, most of us are very, very generous in this direction. In the case of a fleshy person, his or her excessive fat is a sure indication of their overfed condition. They will deny that they are large eaters; well, they may not be, but I would like to have a careful record of the amount of food taken by them in twenty-four hours. I can see how it would be difficult to give up everything one liked particularly, but it is a question of whether you would rather please your palate or be well. For no very fleshy person is well; it is a disease as much as dyspepsia, or ague. The kidneys of a very fat person can not be healthy, and in nine cases out of ten they are badly diseased. You often hear it said that a very fat person is the picture of health. This is a great mistake, so I advise the "fat lady" to turn her thoughts to a little hard work, and if she will carefully and earnestly try the exercises I have advised, and make some sacrifice in the direction of food, I can promise a wonderful change for the better. I would also advise a thorough study of the article on diet in the last March number.

Next month I will devote my space to growing girls and thin women. I will try to answer some of the many questions I have received from the very slender side of femininity.

PRACTICAL RIFLE SHOOTING.

By D. W. King, Jr.

PART V.

THE moulding of bullets does not seem to be much of a trick to the ordinary man or one unfamiliar with the whims and exactions of a genuine rifle crank.

A great many riflemen—and many of them that are considered experts, too. in their locality—are moulding and shooting bullets that are very far from perfect, but are considered first-class by those who really do not know a good bullet when they see one.

Of course any one can melt lead and pour it into a mould, and among a great many this is considered all that is necessary. They will shoot, however, and even do fairly good work; but a great many times a gun is condemned as a poor shooting one, or its user deemed a poor shot, when the fault is almost entirely due to the bad or irregular bullets employed. I have seen riflemen who were excellent shots—and had been such all their lives—shooting bullets full of wrinkles and varying 7 or 8 grains in weight and several thousandths of an inch in diameter and expecting them to shoot all in the same hole; if they did not, the gun was "no good."

It is just as easy to make good bullets as poor ones if one will take the trouble to get everything right and keep it so. In the first place, you should have a good even heat for your lead, and maintain it all the time you are moulding. Do not have your lead red hot part of the time and nearly cold at others. A gas or gasoline stove, or a plumber's forge is the best to use, as in either of them the heat can be kept absolutely uniform. Have plenty of lead in your melting pot so it will hold heat. Mix up five to ten pounds or more, according to your pot's capacity, and do not mould down to the last of it, but keep two or three pounds in the pot all the time. Get it very hot, but not red hot, as that oxidizes it very fast and allows the bullets to vary too much when they cool.

Have your moulds and dipper very hot. The Ideal dipper is the best tool made for the purpose, and should be left in the lead all the time when not in the act of pouring into the moulds. The moulds should be thoroughly and evenly hot, not hot on one side and only warm on the other; of course they will soon get heated by the process of continued moulding, and if one has time, it pays to reject the first dozen or two of bullets, throwing them back into the pot to remelt.

If the surface of the lead in the melting pot is large enough to admit it, it may be covered with powdered charcoal except a small place in the center to dip through; this will keep the surface of the lead hot and prevent it oxidizing and the constant "skimming" of the dross.

An iron ring, large enough to dip through, will float readily on the lead and keep the charcoal from being dipped up in the dipper.

When you have everything ready, dip the dipper full of lead and fit the sprew hole of the mould over the nozzle of the dipper, nolding the latter in a horizontal position, then quickly turn the mould and dipper together into a perpendicular position and hold an instant to allow the weight of the lead in the dipper to compress the lead in the mould and force it to the bottom of all the rings. Then turn mould and dipper back to the original position and when you release the dipper have a good big drop of lead on the moulds. The lead should be hot enough so that you have to wait a few seconds for the lead to cool in the moulds. Cut off the sprew neck and drop the bullets carefully on a cloth or something soft to avoid marring them.

If the moulds are in good condition and properly ventilated you can not help getting perfect bullets every time. I do not have to throw out more than two or three in a thousand, and these few result only from carelessness in not working right. By doing this and using a little patience and practice one may soon make perfect bullets.

In moulding bullets I always wear a heavy pair of asbestos-treated gloves and cut the bullets off by pressing the cut-off with my thumb or finger instead of striking the moulds, which is apt to spring them or jam them and cause them to stick. When you run the last bullet leave it in the mould, not even cutting it off, and put them away that way. It is a great protection to the moulds from being jammed and keeps the inside in perfect condition.

In shooting to get the best results, the bullets should never be seated in the shell, but seated into the grooves of the gun with a bullet seater (if a breech-loader) ahead of the shell; this allows the bullet to start its rotary motion as soon as it starts, in place of jumping straight from the shell to the grooves.

Experiments made from machine rests prove that a gun loaded this way will give much better groups than when loaded in the shell, especially if it is crimped in by a loading tool.

If you load your shells full of powder and want an air space between the powder and bullet, seat the bullet further up in the barrel. The more air space there is the less a bullet will upset, and it also lessens the recoil.

If your bullets are soft and you don't want them to upset too much, give plenty of air space; if hard, and upset is wanted, seat them against the powder.

I know of an expert shot who makes his bullets out of "any old thing" and then finds the elevation by simply giving them air space, sometimes getting them so hard that he has to use F. F. F. G. powder and seating them down on the powder, at others using one-half inch air space and F. G. powder. If a bullet fits a gun properly and is of the right temper (1 to 30

usually) it should have about one-eighth inch air space.

I have been asked many times just what performance I go through in loading a muzzle-loader or false-muzzle gun to be sure I do not shoot without a bullet, or with two bullets, or one only seated into the muzzle. Many a fine gun has been ruined by not having the bullets in their proper place. While I have shot without a bullet several times, I have never shot two or one from the muzzle, or shot my muzzle away. When I have fired I open the breech and remove the empty shell, go to my loading bench, set the gun in the rack, put on false muzzle, take bullet seater in one hand and fish up a bullet with the other, place bullet in starter and start it in the barrel; then I remove starter and seat bullet with seating rod and leave it in the gun. In the meantime I have kept the empty shell in my left hand all the time; I decap and recap it, load from loader, put an oleo wad over it, and set it beside the gun.

Do all this before doing anything else, then, when you get ready to shoot, and find the rod in your gun, you know there is a bullet in your gun and that it is clear down; pull out your rod with one hand and remove false muzzle with the other, and you are ready and sure.

In using 3 grains smokeless for priming I find it is unnecessary to clean a shell, but always leave it loaded when through shooting, as that prevents it from corroding. I have shot one shell nearly 3,000 times without cleaning it, and it is still in good and serviceable condition. It seems wonderful that a shell would stand that many shots, but it has not broken yet, although it is worn so thin you can dent it easily with your finger-nail and is splitting a trifle at the muzzle, which is sharp as a knife. I can seat the primer with my thumb, but it does not blow back. It not only shows a wonderful shell but a perfect chamber in the gun.

The shell is a .32-40 Winchester smokeless, and the gun was made and chambered by George C. Schoyen of Denver.

When using a breech-loader I seat the bullet the first thing after laying the gun on the bench, and leave the bullet seater in the chamber until ready to go to the stand; then I know my bullet is in the gun.

THE SPORTING RIFLE.

By E. A. Leopold.

PART IV.

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WHEN a bullet penetrates any substance it does work. It meets with and overcomes resistance. It is the overcoming of the resistance which constitutes the work which it does. The amount of work done is proportional to the resistance—which may be measured in pounds—and also to the distance or space passed over while overcoming the resistance. The bullet that penetrates fourteen boards does twice as much work as the one which penetrates seven boards, and half as much as the bullet which penetrates twenty-eight boards, the same kind of projectile being employed in each case. The ability of the bullet to do work results from its energy and the energy is impressed upon it by the exploding powder charge.

The work which the powder does may be divided into two parts: prejudicial, and useful. The prejudicial work done by the powder is that which results in friction, heat and destruction of parts of the barrel and bullet. The useful part of the work is that which imparts velocity to the bullet, producing kinetic energy—the energy of a moving body. In speaking of the work done by the powder, the useful work only is considered, unless otherwise stated. The work done is equal to the product of the force into the space worked over.

The unit of work is the raising of one pound of matter vertically one foot, and is called a "foot-pound."

If the rifle barrel is two feet long, exclusive of chamber, and the mean force of the powder is 1,000 pounds, then the work which the powder does on the bullet is 1,000 times 2 equals 2,000 foot pounds; and, if the rifle is 250 times as heavy as the projectile, then it will recoil, while the powder is acting upon it, 2 divided by 250 equals .008 of a foot. The work which the powder does on the gun is, therefore, 1,000 multiplied by .008 equals 8 foot pounds. If the powder has done 2,000 foot pounds of effective work on the bullet, then the bullet must overcome 2,000 foot pounds of resistance in being brought to rest; and, from this data, its destructiveness, penetration and killing powers may be estimated.

Similarly, in the case of the rifle, its kinetic energy is the result of 8 foot pounds of work, and it will do 8 foot pounds of work on the shooter before being brought to rest. This is on the supposition that the gun is free to recoil; but, in actual practice, if the weapon is held to the shoulder, there must be some interference, and the gun will attain less velocity and develop less energy, so that instead of the bullet having 250 times as much energy as the gun, the difference is still greater. The reduction of velocity of recoil of gun on account of being held to the shoulder will be discussed later. Just now it is desired to call particular attention to the difference between momentum and energy.

In a former chapter it was shown that the momentum of the gun, and the momentum of the projectiles (bullet, wads, and powder) are equal. It is now shown that, in a particular case (an ordinary combination of gun, bullet and powder charge), the energy of the projectile is, approximately, 250 times as great as the energy of the gun in recoil. Momentum determines the motions of bodies after impact, while energy determines their ability to compress,

break or damage each other. As before stated, the momentum of the gun can not be changed by decreasing its weight. If the momentum of a light gun shooting a heavy charge throws the sportsman off his balance, the momentum of a heavy gun shooting a similar charge would have an approximately similar effect. But, the punishment, the bruising effect of the recoil, is inversely proportional to the weight of the gun, and directly proportional to its energy, and to the square of its velocity. Momentum is proportional to the velocity, while energy is proportional to the square of the velocity. The same holds true with the projectile; doubling its velocity quadruples its destructive power.

While the principles of momentum are useful in estimating the equilibrium of the shooter, the velocity of recoil of the piece, etc., there are other and more important matters to be investigated, such as the killing power of the bullet, and the bruising power of the gun, and these are best estimated by a consideration of the principles of work and its resulting energy.

The formula for work is as follows: Let F equal a constant force; let s equal the space over which F acts, and let U equal the work done by F; then U equals Fs.

When a bullet is fired from a rifle the work done on the bullet, by the powder, results in kinetic energy, vis viva, or living force.

Hence, the kinetic energy of a moving bullet equals the work stored in it, and this may be recorded in foot pounds.

Kinetic energy, represented by K equals $\frac{1}{2}Mv^2$, in which M is the mass of the body considered, and v its velocity.

For our present purpose it is more convenient to use simple weight units (pounds) instead of mass units, and the expression becomes:

K equals Wv^2 divided by 2g,

in which W is the weight of the bullet, or the gun, as the case may be, in pounds; v2 the square of the velocity and 2g twice gravity, which may be taken as 64.3. Applying this to an ordinary case, the .32-40-165 rifle, what is the energy of this bullet, the velocity being 1,385 f. s.? There are 7,000 grains in a pound, and, as the bullet weighs 165 grains, it weighs as many pounds as 7,000 is contained times in 165, which is .0236. Our equation then becomes:

K equals .0236 multiplied by 1,385 multiplied by 1,385 divided by 64.3 equals 706 foot pounds.

The meaning of this is that the bullet has had 706 foot pounds of effective work impressed upon it and it must do 706 foot pounds of work before being brought to rest. It will penetrate one foot into a medium offering a mean resistance of 706 pounds. If the body of a deer offers a mean risistance of 353 pounds to this bullet it will penetrate two feet into the deer, or else pass clear through and expend the balance of its energy on some other object. The bullet will not stop until it has done 706 foot pounds of work.

Applying the formula for work to this case, we have:

U equals Fs equals 706 foot pounds.

If the space, s, be 2 feet, then the force, F, must be 706 divided by 2 equals 353 pounds.

When impressing velocity upon a projectile we use force, when retarding we use resistance, so that, when discussing the penetration of a bullet we may write the equation

U equals Rs,

in which R equals the resistance in pounds. It therefore follows that

R equals F.

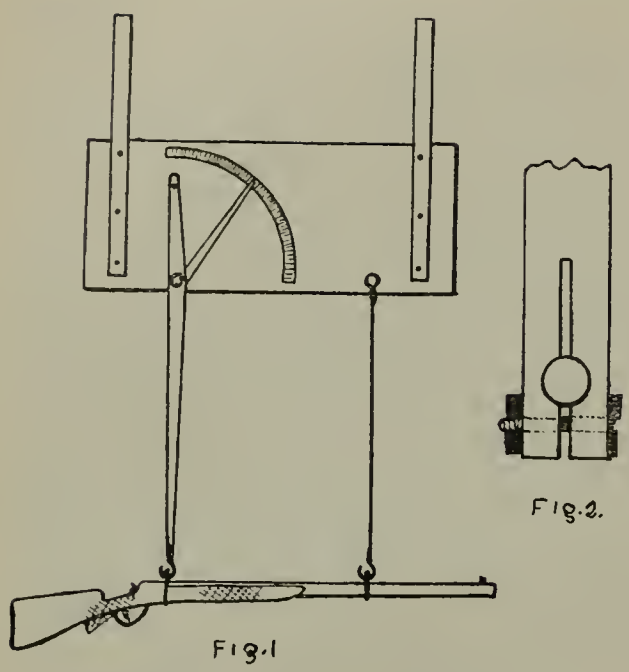
If a projectile exerts a force or pressure of 539 pounds on a pine target, then the target offers a resistance of 539 pounds' pressure to the passage of the bullet.

If the bullet from the .32-40 rifle were fired vertically upward in a vacuum the resistance would be the force of gravity, equal to the weight of the ball, .0236 pounds; and the space 706 divided by .0236 equals 30,000 feet; which is the height to which the bullet would travel before losing all of its velocity. The time of flight would be 43 plus seconds. If then it were to fall to the earth (through a vacuum) its time of fall would be 43 plus seconds, and its final velocity 1,385 f. s. The total distance traveled in the upward and downward portions of the trajectory would be 5.68 miles, and the time 1 minute 26 seconds.

While the bullet was passing through the bore of the rifle barrel—say a distance of two feet—the powder would do 706 foot pounds of work upon it, which would manifest itself at the muzzle in the shape of kinetic energy of projectile, the measure of which would be its 1,385 f. s. velocity. Gravity then takes the bullet in hand, and, after a struggle which lasts 43 seconds, brings it to a standstill at a height of two and one-quarter miles from the earth, having changed its kinetic energy (not destroyed it, for energy is indestructible) to potential energy, the energy of position. Gravity then starts the bullet toward the earth, pulling at it with a force of .0236 pounds, and, after passing over a space of 30,000 feet, it has again regained 706 foot pounds of kinetic energy, and must do that amount of work before its velocity is destroyed.

These conditions can not be exactly fulfilled in practice on account of the resistance of the air, it being impracticable to produce a vacuum for a distance of two and one-half miles. The resistance of the air shortens both the range and the time of flight of all projectiles, having greater effect on short bullets than on long ones; hence the employment of the latter for long range shooting. For ordinary hunting purposes the short bullets are the best, because they possess greater killing power, for an admissible amount of recoil of weapon, than do the long ones.

Of the various theoretical methods in vogue for deducing the energy of recoil from data of the charge, such as weight and velocity of projectile, etc., Sebert's formula seems to be the best, as it seems to get closest to actual conditions. The weights of bullet, wads and powder charge are easily ascertained before the cartridge is made up. The velocity of projectile is accurately measured by means of the chronograph. But there is another factor, the velocity of the powder and powder gas, which must be considered if we are to arrive at very accurate results. In one system this velocity is estimated at one-half the velocity of the bullet, which must be considered as approximately correct if we reckon with the conditions existing at the instant that the bullet passes out at the muzzle. At that moment the velocity of the gas at the muzzle end of barrel is equal to the velocity of the ball, and the velocity of the gas at the breech is zero, so that it is quite evident the mean velocity is one-half of the maximum or muzzle velocity, at that instant. The momentum acquired, up to this instant, is easily computed, and the recoil is estimated therefrom; but the velocity of the weapon in recoil, as indicated by such computation, is less than the actual velocity, because the powder continues to act after the bullet has parted company with the gun. After the bullet leaves the muzzle the gas at-



LEOPOLD'S BALLISTIC PENDULUM.

tains a velocity much greater than the maximum velocity of bullet, and, as action and reaction are equal, the gun must receive an additional increment of momentum.

For the purpose of measuring the entire energy of the gun, in recoil, the writer constructed the apparatus illustrated herewith. The principle is that of the ballistic pendulum, and the construction is as nearly devoid of complication as was found practicable to make it automatic and self-recording, and thus do away with small errors that might result from a lack of skill in the operator conducting the tests.

The apparatus is suspended from an overhead beam to which it is rigidly attached by means of the cleats shown. Two oscillating arms are pivoted on a horizontal line near the lower edge of base plate, these arms being provided with hooks at their lower extremities to engage small rings which are tightly lashed to the gun. The rear pivot also carries an index which is held in any position by an adjustable friction arrangement shown full size in Fig. 2. The index is carried forward on the scale by a pin set in the upper extension of the rear arm. This pin does not pass through the index, but pushes it forward by coming in contact with its rear side. The scale is a quarter circle and is graduated into degrees numbered from 1 at the top to 90 at the bottom. The trigger of the rifle is pulled by means of a clockwork mechanism which is lashed to the stock (not shown in cut). The gun is placed in position loaded and cocked, and after its oscillation has ceased the index is turned back very carefully until it just touches the pin. A record is then made of the number of degrees indicated on the scale, no attempt being made to have it adjusted to zero. The firing mechanism, which is driven by a coiled spring, is set in motion by removing the brake, which is accomplished by a slight pull vertically downward on a very thin piece of wire. This pulling of the brake wire should not impart much motion to the gun, and if a slight oscillation were produced it would nearly, or quite all, be destroyed before the discharge took place, as the clock must run for a few seconds to wind up the cord that pulls the trigger. When the gun is fired it oscillates and the pin in the arm pushes the index forward, where it stays on account of the friction of its pivot, while the arm swings back. The second oscillation will be slightly shorter through friction and the pin will not quite reach the index, so that no harm will be done if the operator fails to catch the gun after the first swing. The number of degrees indicated on the scale are now read off and recorded. The correction is made by subtracting the first number from the second. For instance, if the index showed 2 degrees before firing and 29 degrees after firing, the gun has recoiled through an arc of 27 degrees.

Having the arc of recoil, we find the energy by multiplying the versed sine of the arc by the length of the arm (in this case 4 feet), and this product by the weight of gun and a portion of the attachments, as follows: To the weight of gun and clock add one-half the weight of front arm, one-third of the weight of rear arm, and, for very accurate experiments, add the resistance of friction of machine, in this case three-fourths of an ounce.

(To be continued.)

HINTS TO AMATEURS.

PART IV.

By Arthur Inkersley.

HAVING discussed driving from the tee and playing through the green, the next thing to be considered is the approach-shot, that is, a stroke played with the intention of getting the ball on to the putting-green and as near the hole as possible. A stroke becomes an approach-shot, even if played with the full driving swing, if the player intends to reach the hole, and therefore calculates where the ball is likely to drop and how far it will roll. Now, it is said that the usual tendency is to slice a drive rather than to pull it; and that a stroke played with special reference to direction rather than to distance is still more likely to be sliced. Therefore, in playing a full approach-shot the golfer should not forget that the ball, on reaching the ground, is likely to break to the right, and that it is well to aim somewhat to the left of the hole.

With this caution, it is not necessary to explain in detail the full approach-shot, since all the instructions as to the full swing for the drive apply to it. It must be remembered, however, that most players err in approaching short; so that, if hesitating which of two clubs to use for the stroke, it is well to use the larger one.

Commonly the approach-shot is taken to be a stroke played with an iron and with less than the full swing. Shots of this class may be of various kinds. With regard to the distance desired, there are three-quarter shots, half shots and wrist shots. With regard to elevation, the ball may be run up along the ground; it may be lofted with a run, or it may be lofted so as to pitch dead. With regard to the style of playing the ball, a straightforward stroke, or one in which the club-head moves in the intended line of flight of the ball, may be used; or the ball may be played with a cut, that is, with the club-head moving across the line of flight of the ball. If the player understands these differences, he will be assisted in estimating the strength of his stroke accurately and in executing it with success.

A WRIST SHOT.

The three-quarter shot is used when a full swing shot, if correctly made, would carry the ball too far. It is a difficult shot and more often falls than almost any other. If the player grasps the difference between the three-quarter stroke, the full swing stroke and the half shot, he will be much helped in his efforts to accomplish it. It differs from the full swing shot in the fact that the shoulders do not swing round; it is played with the arms only. The left shoulder does not swing down and the left heel does not rise much from the ground. The iron should swing as far back as the arms will take it but the shoulders should not go away after the club, or the result will be a hybrid between a full shot and a three-quarter one.

The distinction between these three approach-shots is highly important, if the player is to make them in a reasonable and effective manner. It is also necessary that the player should learn to use his wrists, which can be done best by practicing the wrist stroke, in which the iron is

allowed to go back very little further than the turn of the wrists takes it, even the right forearm being scarcely moved at all.

In all these iron shots there is less swing and more hitting than in the full driving stroke. The hit is given by a turn of the wrists at the moment that the club meets the ball, the club being gripped with considerable firmness. The turn of the wrists is rather upward as the club is brought away from the ball; and, as the club comes down, the wrists are to be brought back sharply to their position while addressing the ball.

In the full driving stroke the weight of the body is transferred from the left leg to the right as the club swings up, and from the right leg to the left as the club descends. In three-quarter shots this is not so marked; for, the shorter the shot is, the more is the weight kept to one leg. In the half shot there is still less shifting of the weight. In playing a half shot or a wrist shot most players rest their weight on the right leg. In the full drive the player stands nearly at right angles to the line of intended direction of the ball. For the half shot he should face at an angle of forty-five degrees to the line of intended flight of the ball, and his left foot should be at an almost similar angle. His right foot should be nearer to his left than in the drive, and well in front of a line drawn from the left toe parallel to the line of intended flight of the ball. Eyes, hands and ball are in one plane, but the plane is not at a true right angle with the line of flight. The knees are more bent and the body is in a more crouching position than for the drive.

The position suggested is suitable for a stroke that will loft the ball some distance and then will permit it to run, that is, for a half shot of average distance and loft. It is also the right position for a cutting stroke intended to make the ball stop dead on reaching the ground.

For the three-quarter shot the right foot should not be kept so far forward as for the half shot, nor should the ball be so much to the right of the player. The same position is right for the running-up iron stroke, though for this the ball is still more to the player's right, being about opposite to his right toe.

The grip of the club and the angle of the arms have next to be considered. The hands should be nearer in to the body than for the full drive, the right elbow being close to the side, and the right forearm almost resting on the right thigh. The left elbow is to be squared slightly.

The grip for the iron stroke is a delicate matter, requiring much nicety. The iron must be held as much as possible in the fingers and with a firm grip, the club being intended not to turn at all in the grasp. The first joint of the right forefinger should be pressed on the leather, that the stroke may be guided well. But, firm as the grip of the fingers is to be, the wrists must be supple and work easily. The stroke should be practiced without a ball at first. Then the player should take a ball and try whether he can hit it truly or not.

When the player can accomplish this, he should take a little longer shot, bringing the right forearm into play. To do this, the right upper arm is still kept close to the side, but the left hand follows the club away back and renders it necessary to straighten the left elbow across the body. The arms go away a little in order to increase the swing of the club; but, though they swing back a little, they must not be allowed to swing forward more than to resume the position occupied by them when the ball was being addressed. The following on of the club after the ball should be under control of the wrists only.

When the distance to be attained is a little greater than can be managed by a wrist shot, then the swing is made a little longer by letting the body sway on the knees. The left knee goes in and the right out as the club swings back, and vice versa as it swings forward. Sometimes these are termed "knee shots," but the stroke (except for the slight knee swing) is just the same as the wrist shots. As the swing is longer, the club comes forward with such speed that the arms must be permitted to go forward a short distance, so as to save the wrists from a jar; or the body may be allowed to swing away somewhat backward.

Most good iron-players, and almost all professionals, slice their iron shots. They play these shots with cut on them, the cut being communicated in the following manner: The player stands facing the hole; then, with his arms in the same position as for the half shot, he places the iron behind the ball so that its face is at right angles to the line of intended flight of the ball; then, the club being raised with the wrists in the usual way and brought back to the ball, the club travels across the intended line of flight of the ball. The ball will, however, fly off at a right angle to the face of the club as it meets it, the result being that the ball is sent forward with a left to right spin. When it touches the ground it will not run straight ahead but will break off to the right.

The cutting stroke with the iron being sideways and downward, the club head is apt to cut into the turf considerably, hence it is much more difficult to play these cut strokes when the ground is hard than when it is soft and yielding. In fact, on hard ground it is not possible to put much cut on the ball, as the iron on meeting the unyielding ground is deflected and does not strike the ball where it is intended.

It is also difficult to put cut on a ball that lies in loose sand. When the ball is on turf, it is built up by the strong blades, but it rests close down on sand. In such a case it is well to shorten the grip of the club, as this makes it easier to take the ball clean.

If it is desired to make the ball stop almost stone dead on reaching the ground, this can be accomplished, though it is not at all easy. It is sometimes necessary, however, as when the hole is just over a bunker. The player takes the same position as for the ordinary half shot, but holds his right hand loose, thus raising the ball away straight from the face of the club. As the club comes down, the arms should not be allowed to swing back any further than to the position in which they were when the ball was being addressed. The stroke, which is somewhat across the ball, must be finished by the wrists alone. A stroke of this kind has very little forward driving power and should be attempted only when the player is in difficulties and deems it really necessary.

An unusually lofted club will make the ball stop dead and will give the necessary elevation, but with such a club it is very hard to make certain of hitting the ball at the right point of the face of the club, and therefore very difficult to judge the distance accurately. If much lofted clubs are used, the ordinary half shot is made with them. After making the stroke, the player should wait for a moment in the position in which he is at the finish.

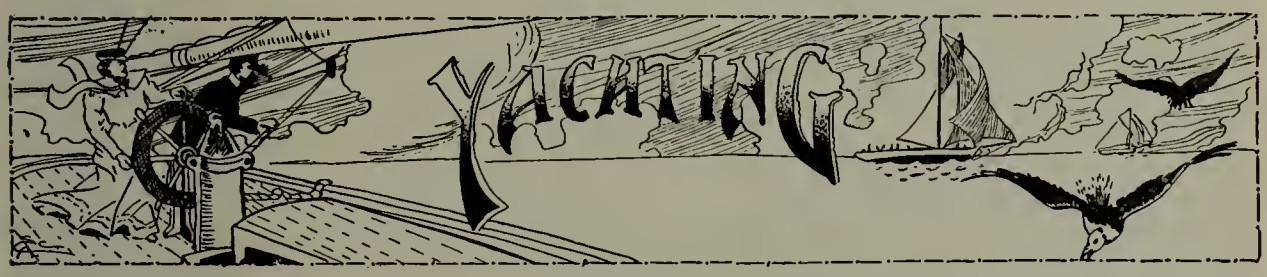
On some courses there are holes on putting-greens up to which little banks lead. In such cases players "run up with the iron." The po-

sition for doing this is the same as for the regular half shot, but with the ball a little further from the player and a little more to the right. The hands, however, are brought away out from the body and a little forward, thus presenting the face of the iron more upright to the ball. The swing back is then made almost wholly with the body, the fingers, wrists, arms and shoulders being kept rigid. The club goes back close over the surface of the ground, and is brought back to the ball by a similar reverse turn of the body. As the ball is struck the club follows on after it, the knee being bent in and the whole body following on. The ball, if the stroke has been properly made, at first skims close to the ground, and then runs up the slope of the bank on to the green.

The approach-shots of most importance, and that should be practiced assiduously, are the three-quarter stroke, the half stroke and the wrist stroke played off the right knee, with as great a control of the cut as can be acquired. The great principles of playing with the iron are enumerated as follows by that great amateur golfer, Mr. Horace G. Hutchinson:

1. Do not take your eye off the ball.
2. Do not aim too long, or the eye will become weary and unable to gauge distance or direction.
3. Aim to pitch the ball to the left of the hole.
4. Be up.

The last of these counsels is the greatest. It has been said that a man who always hits his ball hard enough in approaching to be up to the hole will never lose a match.



MAIN BOOMS AND HOLLOW SPARS

COMPILED BY ARTHUR INKERSLEY.

THE main boom is one of the most important sticks in a yacht and requires as careful selection as the mast itself. There is a great strain on the boom, especially of a racing yacht, and the main boom must possess strength combined with lightness. Though the weight of the main boom is well down in the body of the craft, yet the size of a spar of sufficient strength to withstand the strain involves a weight that has a serious effect on the behavior of the vessel in a heavy sea. The main boom of a yacht close hauled, in a fresh breeze and rough weather, buckles greatly with the weight of the mainsail; more, indeed, than would be believed possible when the strength and solidity of the spar are considered. When in heavy weather the mainsail is stowed, the trysail set and the yacht relieved of the weight of the main boom, the vessel at once experiences and clearly shows the relief.

Unless a boom is rigid, it is almost useless; the best cut mainsail in the world will bag in an unsightly manner unless it has a good, stiff spar along its foot. Every inch of buckle in the main boom causes the mainsail to bag. The object, therefore, of the yacht builder is to get spars that possess the necessary stiffness and will not buckle. When the mainsail is laced to the boom, as is the almost universal practice in American waters, a much lighter spar can be used as a main boom. To obviate buckling, where the mainsail is not laced, main booms are made much thicker and heavier in the middle than at the ends, the spar being shaped like a cigar; for the strain at the jaws and the clew, though considerable, is by no means so great as at the middle of the boom.

As to whether a main boom should be fitted with wooden jaws or an iron goose-neck, yachtsmen differ. Some yachts are fitted in one way

COMMODORE JENNINGS, CORINTHIAN YACHT CLUB.

and some in the other. It may be said, however, that wooden jaws, no matter how light they are or how neatly they may be fitted, are more or less clumsy. As they are not stronger than the goose-neck, it is not easy to perceive in what respect they are better than the iron fittings. Wooden jaws have some drawbacks. Where the mast bitts are close to the mast, the boom often jams and chafes the lee falls; and on a calm night, the jaws creak against the mast in a most annoying way. If a goose-neck is fitted properly in such a manner as to give free play, vertically and laterally, to the boom, and the ironwork is sound, it is stronger than wooden jaws, and it certainly has a neater and smarter appearance, giving plenty of room

for belaying the halyards at the foot of the mast. If at any time in very heavy weather it should be necessary to unship the boom and stow it on the deck, the boom with a goose-neck can be stowed much more handily than the one with wooden jaws. Further, a boom with a goose-neck can be fitted much closer to the deck, which is desirable. The objection that iron goose-neck fittings stain the deck and make rust-marks on the mainsail is not serious, as all iron-work that is exposed to the action of the weather is, or should be, galvanized.

It is a good thing to have a main boom provided with a leather-covered traveler, having tackle to get out the clew of the mainsail with. If the clew of the mainsail is lashed permanently to the after end of the boom, an undue strain is imposed on it, especially when the sail is wet. The clew is pulled out and sometimes the bolt-rope and the canvas give way; and even if this does not happen, a hollow that is unsightly to the eye is produced at the foot of the after leech. If a properly fitted traveler is provided, the sail can be eased up or hauled out as may be necessary. The bee blocks for the reef pennants should be placed accurately on the boom, so that the pennants will bring the reefs down properly.

One of the most dangerous accidents that can happen to a yacht is the carrying away of the main boom, which, with the great power of the mainsail acting upon it, may sweep the crew off the deck, or the broken end that remains attached to the clew may pierce a hole in the craft's side or quarter. Every precaution, therefore, that knowledge and experience can suggest, should be used in the selection of the spar, which should have weight and substance enough to insure rigidity, so as to stretch the foot of the sail properly.

In a yacht, as in an automobile, the desideratum is lightness of material combined with strength. Every pound of unnecessary weight placed above the waterline counteracts the effect of the ballast; a heavy main boom has considerable influence on the stability of a yacht, especially of the deep, narrow type. In fact, cutters, when cruising in heavy weather, use trysails, and, having got rid of the weight of the main boom, are much more easily handled, whether running, reaching or on the wind. If the boom is lashed amidships, its weight coincides more nearly with the center of gravity in the line of the yacht's keel and the vessel is much relieved; when the boom is unshipped and stowed on deck, its weight is brought still lower down. The utmost that can be done to help a vessel to battle with a heavy gale is to bring her topmast and crosstrees down, house her bowsprit, unship and stow her boom and set storm canvas. If, therefore, the weight of her bowsprit, mast and main boom can be reduced from the start, it is reasonable to expect that a boat will behave better in average weather, just as she does when relieved of them altogether in a gale.

SLOOP "CORINTHIAN," CHALLENGER FOR THE SAN FRANCISCO PERPETUAL CUP.

The above remarks lead naturally to the consideration of hollow spars. These were first brought to the notice of yachtsmen generally by Morton and Fish, yacht builders of New York.

The great end to be achieved in rigging and fitting out a yacht intended to combine speed

with high sea-going qualities is to reduce the weight of everything above the waterline to a minimum, while retaining a proper amount of strength. Bulwarks, chain-plates, skylights, companion-ways, hatchways, windlasses, bitts, decks, standing and running rigging, spars, should all be as light as is convenient with the performance of their functions. Whether in fair or in stormy weather, all unnecessary weight aloft is detrimental to the best behavior of a boat. American yacht designers became alive to this fact sooner than the British, as is shown by craft as old as the schooner "America." The American clipper ships spread a great area of canvas on light spars, and made remarkably quick ocean passages.

hooped together with loops placed five feet apart; the loops were tightened and the spar put together as firmly as it grew originally. Lest the sides, when the boom was buckled from the strain of the mainsail, should work lengthwise, auger holes, an inch across, were made in the seams of the spar at certain distances and tree-nails driven in. The resulting spar was said to be the strongest and lightest boom of its dimensions ever seen up to that time.

Hollow spars are almost unknown in the Bay of San Francisco, where the yachts are of such moderate size that there is no difficulty in obtaining handsome and good spars for them, the advantages of the hollow spars being more conspicuous in the big vessel than in the craft of

J. R. HANIFY'S SCHOONER "MARTHA."

The first hollow spars made were obtained by boring out solid sticks, as was done in the case of the "America's" bowsprit. The American sloop "Maria" had a hollow boom one hundred feet long. Not only would it have been difficult to procure a solid spar of that length, but its great weight would have been a severe strain on the mast and hull of the craft. The boom and bowsprit were built by Morton and Fish of staves hooped together with iron bands. Another boom, seventy-four feet long, fifteen inches in diameter at the slings and eight inches at the ends, was made by the same makers thus: A solid stick of white pine was shaped to the required size, then sawn down the center and the inside gouged out, leaving only a shell two inches thick. Both sides were allowed to dry out and become well seasoned and were then

small dimensions. The new sloop "Corinthian," built by the club of the same name for the purpose of winning back (if possible) the San Francisco Perpetual Challenge Cup, has a hollow main boom built in the Eastern States.

The choice of a gaff is highly important, for, no matter how fine the main boom may be, the mainsail will never set properly if the gaff is not good. A stick of well-seasoned, close-grained timber, free from knots, must be selected, and the lighter it is, the better. It must, however, be stiff, for if it buckles at all when the mainsail is hoisted, the after part of the sail will bag; more particularly if the sail is square-headed. A sail cut with a high peak can be set on a lighter spar, and by placing the peak halyard blocks well out, it can be tapered and made even lighter.

THE S. F. PERPETUAL CHALLENGE CUP.

The length of a gaff depends, of course, on the size of the sail to be bent on it, but it must be long enough to take out the head of the sail as it stretches. There should not be a wrinkle in the head of a mainsail. In a racing yacht the lacing should be overhauled whenever the least slackness of the head of the sail is observed; but if the gaff is not long enough, this can not be done.

One argument in favor of a peaked sail is that a square-headed sail requires a heavier spar, and so there is more weight aloft. Another is that a square-headed mainsail can not be set so advantageously when a vessel is close-hauled as one cut with a high peak, for the former's gaff always makes a considerable angle with the main boom, and the best work of the head of the sail in driving the vessel forward is lost, while the gaff of the latter lies nearly in the same plane as the boom. Then, the square-headed sail is more likely to constitute a drag on a craft and to depress her quarters when she heels over in a strong breeze than the peaked sail, which keeps the weight of the canvas more in the body of the vessel. With a high peak to the mainsail, a shorter mainmast will spread an equal area of canvas to greater advantage than a longer mast and a square-headed sail, and snug spars are a great comfort, whether the yachtsman is cruising or racing.

The jaws of the gaff may be of wood or iron, the latter being preferred where the sail is peaked high. In running with the mainsheet eased well out, wooden jaws get jammed against the eyes of the rigging; then, when the craft gets into a lumpy sea, the gaff snaps off short; while iron jaws do not have to be so thick at the throat, and fit snugly round the mast, the horns slipping in under the rigging and preventing it from becoming a point of support to a force that endeavors to carry the gaff away. Whether the jaws are of wood or iron, the gaff should be fitted with a solid wooden tumbler, playing easily in a strong pin between them; this reduces the strain on the jaws, prevents the gaff becoming jammed against the mast or chafing it, and makes the gaff travel up and down the mast perfectly. Galvanized wire straps covered with leather are excellent for the peak halyard blocks to hook into, and also for mainsheet and jib halyard block straps.

Care must be taken that the blocks at the end of the gaff for the topsail sheets to reeve through have a sheave suitable to the size of rope to be used for the sheets, and that the shell of the block is riveted firmly to the spar. The bolts and pin under the throat of the gaff which take the throat of the mainsail should be strong and well galvanized. Iron jaws should be neatly covered with leather and everything connected with the gaff (material, blocks and fittings) should be of the best, as an easy working gaff is of great importance when the boat must be handled smartly in heavy weather. A badly fitted gaff is more likely to hinder good and smart handling of a yacht than any other part of its rigging or spars.

ONE of the most serious offenses of the driver of an automobile is to swing out of his proper position on to the wrong side of the road, under circumstances that prevent him from seeing far ahead, trusting that the great amenability of the motor car to control will enable him to avoid a collision. It was just this which caused the recent death of Miss Florence G. Maas in Central Park, New York. J. S. Jaeger, a civil engineer, was out in a twenty-horsepower Mercedes car with his chauffeur, Miss Maas and a man named Stroock. The automobile proceeded along Eighty-sixth street behind an electric car bound east. On nearing a tunnel, where a bridge crossed the road, Jaeger turned the automobile to the left side of the road to get round and ahead of the electric car. He had almost succeeded when he saw an electric car, west bound, coming out of the tunnel. To avoid colliding with it and also keep from being struck by the eastbound car behind him, he quickened the speed of the automobile and tried to get to the right side of the road. Through some miscalculation, he ran into the curbstone, throwing Miss Maas and Stroock out. The latter had his collar-bone broken, but Miss Maas fractured her skull and died a few hours afterward.

As the Automobile, commenting on this fatal accident, says, this trick of going on to the wrong side of the road " is fruitful of more dangers . . . than any excessive speeding of a machine on its own side of the road." It is recommended that criminal proceedings or a suit for heavy damages be brought against drivers of this sort when any mishap results. Reckless and inconsiderate drivers are the worst enemies of automobilism, whether considered as an industry or a recreation. A single fatal accident, such as the one just described, creates much prejudice and opposition to the automobile. If a man chooses to perform stunts with his car on a clear highway and has no one with him, he is risking his own neck only. But, when he invites friends or acquaintances to accompany him, he is responsible for their safety, and is obviously bound to drive slowly and carefully when the road ahead is not clear.

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The large sums of money that are being spent in most of the principal cities of the United States in building garages shows how confident the builders are of the growth of the automobile industry. In the last few months the facilities for storing motor-cars have been more than doubled in several cities. Many private automobile stables have also been erected.

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The Russo-Japanese war is affecting the price of platinum, nearly the whole supply of which comes from the Ural Mountains. Platinum and its alloys are used largely for electrical and chemical purposes. Gas engines, automobiles and many electrical appliances have plantinum contacts and attachments. If the war continues for a long time, a great advance in the price of platinum is certain.

The contest for the International cup, commonly termed the Gordon Bennett cup, takes place in Germany on June 17. Louis P. Mooers has a new Peerless racing car, which he feels sure will qualify for a place on the American team and will do well in the great race. The remarkable features of the car are its weight and horsepower. Though it weighs only 1,800 pounds, its four-cylinder engine, at 500 revolutions per minute, develops fifty horsepower, and at top speed is expected to develop eighty horsepower. It is constructed on the principle that a light machine with moderate power will be more satisfactory than a heavy one of high power in a long race over winding roads. The superstructure comes to a sharp point in front and looks much like an inverted boat.

* * *

Alexander Winton has entered the Winton Bullet No. 2 for the American team in the race for the Gordon Bennett cup, but says that he will not drive the car himself. This is the car which covered one mile in fifty-five seconds on the track at Los Angeles on November 20 of last year, Barney Oldfield being the operator. A little while before, on October 29, Barney Oldfield had covered fifteen miles in fourteen minutes twenty-one seconds at Denver, Colorado. On the famous Ormond Beach the Bullet No. 2 made the fastest straightaway mile ever covered in a competition, the time being forty-three seconds. On that occasion it beat W. K. Vanderbilt Jr., in his eighty-horsepower Mercedes, which the day before had made the world's reccord for a mile straightaway with flying start—thirty-nine seconds. Winton drove Bullet No. 2 in the International cup race in Ireland last year, but had trouble with his engine and did not accomplish anything. The car has now been thoroughly tuned up and Winton believes that it is the fastest automobile in the world.

The Automobile Club of Germany will not hold any eliminatory trials to decide who the three German competitors shall be. M. Mercedes nominates the first two cars, and the choice of a third competitor will be made by consent. The club secretary went over the whole circuit on foot so as to examine the state of the roads minutely. Grand stands have been constructed, two new roads made, and at least forty-five kilometers of the road has been laid with " westruwite," which, it is to be supposed, is a paving material of high merit. As regards the prices that visitors will have to pay for accommodations, it is said that a bachelor can get a very comfortable room for about $1.25 per day in Homburg. There are rumors that high prices will be demanded for gasoline, but, in the hope of obviating this, a list of depots near the course where gasoline can be obtained has been issued and will be sent gratis to automobilists who ask for it. The people to address are the Vereinigte Benzinfabriken Gesellschaft of Bremen and the thing to ask for is Abtheilung Benzinstationen. It must be admitted that the name looks and sounds like the devil, but the people are probably all right.

BARNEY OLDFIELD, AMERICAN CHAMPION MOTORIST ON "BULLET NO. 2."

Barney Oldfield having been suspended by the American Automobile Association for competing in unsanctioned race meets, has severed his connection with the Winton Company, Winton saying that he does not care to have his cars take part in professional races. To help amateur racing, Winton has made arrangements with Harry Owensney, agent for the Winton car in Washington, to drive the two "Bullet" cars, and it is probable that Owesney will make the racing circuit.

Oldfield tried to make arrangements to drive the Peerless Motor-Car Company's car in the race for the International Cup, but it is said that Joe Tracy of New York will operate it. Oldfield was in New York in April seeking reinstatement by the racing board of the American Automobile Association. He said that the board should not have suspended him without warning, but admitted that he invited suspension by violating the rules of the board. As a writer in "Automobile Topics" beautifully explains the situation, "The boy star of our firmament was metaphorically spanked into a temporary eclipse and his lights dimmed by the necessarily paternalistic action of the racing board." That there may be no doubt at all about it the writer goes on to say that he uses the "expression 'boy star' purposely. For if ever there was a man who is only a grown-up boy, that man is Barney Oldfield. Turned loose with a world-beating car, he received adulation enough to have turned an older and wiser head. Couple this condition with a foxy professional manager and you have the cause of his fall from grace." It is now in order for the writer of the star-spanked paragraph quoted above to explain how he fell from grace and got his metaphors so badly mixed.

The International Cup race is causing a renewed interest in the metric system in the United States. This system is in vogue in every civilized country except Great Britain, Russia and the United States, and will be used on all cars entered in the international race except the British and American. A bill to compel the adoption of the metric system has been introduced into Congress, but the antomobile manufacturers recently held a meeting at which the bill was condemned and Congress petitioned to reject it. The automobile men say that the compulsory introduction of the system will make complete changes in the dies, thread-cutters and tools of their factories and will add greatly to the cost of production at a time when an effort is being made to lower it. In Great Britain a bill has just reached its second reading in the House of Lords to make the change from the present confusing and complex measurements and weights to the metric system compulsory within two years.

Lord Kelvin, the great physicist, says that manufacturers would be compensated in a month for all the expense and trouble caused by the change; and the Earl of Rosebery asserts that the change would be more beneficial to British trade than all the fiscal remedies suggested by official and amateur reformers put together. Sir William Ramsay actually saw the change made in Germany, and says that the trouble would be ended in a week. If the system were in force it is said that business men in all parts of the world would be enabled to transact affairs more rapidly.

NORTHWEST DEPARTMENT

Devoted to Sport in Washington and British Columbia. Conducted by F. M. Kelly.

But, up to the mountains!
This is not hunter's language:—he that strikes
The venison first, shall be lord o' the feast.
—Cymbeline.

TRUTH is stranger than fiction"; and because of that, we do not wonder when we observe two otherwise well-balanced mortals growing somewhat excited in discussing points of merit in their respective canines. 'Tis true, blows are rarely resorted to, for there seems to be a wall between them, a wall neither of brick nor stone, but just as material in a sense—the wall of discretion. That wall stands for much good, the division of much ire, is a potent factor in maintaining the peace of the community.

From a philosophical point of view, this bickering, this wordy warfare over a brace of doggies, is highly amusing. Why? For the cannot-be-disputed-with-reason fact that it was accident, pure and simple, gave Bill Jones and Joe Smith the dogs they swear by. Now, if by that same accident Joe Smith had received the dog that Bill Jones now posseses, why that dog, in his estimation, would far surpass the dog he now swears by; and as it would be with Smith, so it would be with Jones. Overhearing such arguments, 'tis no wonder we sometimes grow cynical.

* * *

Trout fishing has been and still continues to be excellent throughout this part of the country, good bags being the rule and not the exception. One notices with pleasure, also, that the major portion of the fishermen have some thought for future years, killing no more than they require for themselves, the number of the "take" ever being consistent with the creel-weight of the true sportsman. There are some, however, who seem to never be satisfied, and if time permitted, those comprising that some would make the game fish surprisingly scarce. They fish all day, night only driving them from the water; and as quick as they land a fish, they exhibit a feverish haste in returning the bait for another. The object can not be sport; it must be numbers. Yes, I rather fancy that's it. Something to blow about, for others to comment on.

About the middle of April, a fellow caught so many in Cusheon Lake, Salt Spring Island, that he didn't try to count them, said it "was too much trouble!" He fished with several hooks on his line, rarely landing less than two fish. The "take" filled a "gunny-sack," two boxes and a basket. One is forced to believe that the person who would take fish in such a quantity has not a germ of sport in his blood—is rather a workman at the game; for if handling such a bulk can not be rightly construed as labor (not uplifting and enervating, by the way, but gross and debasing), well, nought in this world can be set down as toil.

People living in the vicinity of Green Lake and near the Denny River like trout about as well as others whose habitations are miles removed from fish-abounding lake and river. The fact of them living near where fish are plentiful does not create indifference, strange to say, but desire. Desire and the law, however, do not always go hand in hand. The fish-lovers of Green Lake and the Denny were aware of this, but it didn't prevent them from getting up early of a morning and devoting an hour or two to the witchery of angling.

When it was reported to him, Game Warden Rief, Seattle, investigated the matter, interviewing a number of the anglers. They informed him that they sought perch. Now, as Mr. Rief said, or words to the same effect, even though a person might be fishing for perch, it wouldn't prevent a trout from taking the hook. When he spoke after that manner to them, the answer was that when a trout was hooked, it was immediately released. Then the game warden informed them that a large percentage of trout handled in that fashion did not live; and further, he pointed out that it was against the law to fish either in Green Lake or the Denny, and that continued infringements would only lead to certain results—prosecutions under the statute. The fishing has ceased.

Ten thousand eastern brook trout and twenty thousand steelheads were planted in the abovementioned waters in 1902, the law reading that no fish shall be taken therefrom for three years, or until 1905.

* * *

During the early part of April, the Prosser Rod and Gun Club, of Prosser, Wash., liberated three brace of Chinese pheasants along the Yakima River, where it is thought they will thrive and do well.

* * *

The Snohomish County Rod and Gun Club was organized at Everett on April 20, and officers elected. President, W. F. Terrill; vice-president, C. M. Chambers; secretary, Alexander Keay; treasurer, H. Hunt. Devotees of the rod and gun in all parts of the county are eligible for membership; and one of the first items of business in connection with the new organization was to offer a reward of ten dollars for any and all convictions under the State game act.

* * *

The Snohomish Club, of Seattle, were on trial before a judge of Snohomish County during the middle part of April. The action was brought by the prosecuting attorney of Skagit County. The Snohomish Club control shooting boxes on Whitney Island, the prosecution holding that they were on tide lands, at all times flooded, but the defendants held otherwise, the judge finding in their favor. The defendants were successful in having the case transferred from Skagit to Snohomish County, claiming that the people of the former county were prejudiced against the club.

* * *

On Sunday, April 10, the annual shoot of the Victoria Gun Club took place on the club grounds at Langford Plains. The chief event was the contest for the club's trophy, a magnifi-

cent silver cup. It was won a second time by W. H. Adams, with a score of twenty-three birds. The weather was all that could be desired. A junior shoot was also indulged in, a prize being hung up by prominent members of the organization.

* * *

Great preparations are being made by Secretary Pearce and the managing committee of the Victoria Yacht Club for the big international regatta of July 2 and 4. The gathering of boats promises to be the largest in recent years, the fleet flyers of Vancouver, Bellingham, Seattle, Port Townsend and Victoria to compete for the yachting supremacy of Northwestern waters.

* * *

At their annual meeting, the members of the Victorial Yacht Club elected the following officers for 1904: Commodore, W. H. Langley; vice-commidore, W. S. Gore; captain, G. V. Cuppage; secretary-treasurer and measurer, J. Mulcahy; managing committee, Messrs. A. T. Pearce, Lieutenant French, B. B. Temple, C. W. McIntosh and T. Hickey; fleet surgeon, Dr. O. M. Jones.

* * *

The Seattle Yacht Club, having reconsidered the matter, will hold a regatta early in September, the dates not yet being decided upon.

* * *

In the spring of '03 the Vancouver Yacht Club sprang into life. Then the fleet was small, and the membership, though enthusiastic, was in proportion. To-day there are 106 members enrolled, and some thirty-five boats fly the club's burgee. Not so bad, taking everything into consideration. To the initiative of the vice-commodore, W. Hodson, the splendid progress of the club is mainly due, the commodore, W. Graveley, and the secretary, O. L. Spencer, supporting him in the furtherance of all matters pertaining to the sport of kings on the mainland of British Columbia. The new home of the club has been completed for some time, and is a credit to those who have worked so assiduously in the interests of yachting on Burrard Inlet.

* * *

On Wednesday, April 6, Mrs. James D. Hoge won the ladies' championship golf match, played at Lake Washington, on the links of the Seattle Golf Club. The weather was ideal, large numbers of interested spectators witnessing the contests. Mainly, the interested was centered in the winning of the C. D. Stimson trophy, which after some brilliant playing was captured by Mrs. Hoge. Twice the cup has been won by Mrs. Folsom, and twice by Miss Grant. It must be won a third time before lost to the club.

* * *

For four days, April 13, 14, 15 and 16, eager golfers tramped the links at Oak Bay, Victoria, driving the little white balls before them with such exactness that the outsider was fain to think that the placing of the little spheres in desired positions was of the utmost importance to the welfare of the country at large. The sixth annual championship meeting of the Pacific Northwest Golf Association was the cause of it all. Altogether, the meet was highly suc-

A NORTHERN RIVER "BREAKING UP" IN THE SPRING.

cessful, the weather being all that could be desired, and good play was the order throughout. For the first time, Spokane sent a representative, Mr. McCullough. The principal feature of the tournament was in the semi-finals, when the champion players of the Northwest, R. S. Maclay of Portland, and F. C. Newton of Seattle battled for supremacy. It was a splendid exhibition, closely contested and brilliantly played. The championship of the Northwest was again carried off by Mr. Maclay, last year's champion. The ladies' championship was won by a Victoria lady, Mrs. W. F. Burton, who in the finals met and defeated another fine player, Mrs. Walter Langley, also of Victoria. The ladies' handicap championship went to Mrs. Carston of Seattle, Mrs. P. Lampman being second. The open handicap for men, played on Friday, resulted in a tie, but when played off on Saturday, W. F. Burton of Victoria defeated his opponent, E. J. Garrett of Seattle, after a close contest, by one up. Miss Langley of Victoria won in the driving contest for ladies, distance 164 yards. Miss King of Portland won the putting competition for ladies. In the ladies' approaching contest, Mrs. Holland of Victoria was first. In the gentlemen's driving competition, Mr. Newton of Seattle captured first place, with a drive of 205 yards. The ladies' foursomes were won by Mrs. and Miss Langley, Victoria, and in the mixed foursomes Mrs. Langley and Captain Davidson won with a scratch of 86. In the men's foursomes, three pair tied for first place.

* * *

The friction caused by the decisions of Judge Davidson, Victoria Kennel Club show, has all but died away, but matters were somewhat strained for a time. During the excitement, and shortly after the awards were made, Mr. Riplinger of Seattle challenged Mr. Minor of Victoria to show Zola Montez at Portland, wagering two to one hundred dollars that she would be defeated there, his setter getting the decision over her; and in the event of it being so, Mr. Minor would be paid all the expenses incidental to the exhibiting. Mr. Minor, however, had not intended to show Zola there, having made arrangements to send her East for breeding purposes; but went back at Mr. Riplinger with a counter challenge, offering to bet any sum up to one thousand dollars, the dogs to go before a recognized English setter judge.

* * *

T. P. McConnell having resigned the secretaryship of the Victoria Kennel Club, W. F. Dunn was appointed his successor. During his term of office Mr. McConnell proved a zealous official, being mainly responsible for the splended successes attending the principal bench shows of the Victoria Kennel Club.

* * *

The Pacific Kennel League changed its name at the annual meeting held in Seattle on April 16, henceforth being known as the Western Kennel League. To make matters doubly secure in the territory west of the Mississippi, arrangements were made with the American Field for enlarging the scope of the Field's Stud-Book, to include all varieties. In that book all the Western Kennel League's dogs will be entered, strict rules, however, governing the registration. The owner of a dog desiring its registration must furnish an affidavit as to its pedigree. Then for a month notice will be published giving fanciers every opportunity to protest. Should nothing develop, the dog to be duly given its W. K. L. numbers and certificate.

The question of a stud-book had been discussed time and time again since the organization of the Pacific Kennel League by H. T. Payne of San Francisco and Norman J. Stewart of San Jose, but no action was taken until the annual meeting of this season. The Field's Kennel Book is widely recognized as an authority, and the Western Kennel League has undoubtedly made a wise move.

For the ensuing year the following officers were installed: President, Julius Redelsheimer, Seattle; secretary-treasurer, Norman J. Stewart, San Jose; vice-presidents, J. J. Tulk, Vancouver, B. C.; T. P. McConnell, Victoria, B. C.; Arthur Letts, Los Angeles, Cal.; William Goldman, Portland; C. B. Yandell, Seattle.

THE BARREN LANDS OF THE NORTH.

H. L. Betten, Editor.

"The poor dog, in life the firmest friend,
The first to welcome, foremost to defend,
Whose honest heart is still his master's own,
Who labors, fights, lives, breathes for him alone."
—Byron.

THE TRAINING OF THE FIELD DOG.

No. 13—Correction of Faults.

THE average puppy is inclined toward vocal demonstrations, and to curb such when they result merely from a feeling of exuberance is little short of a crime. Nevertheless, in making allowances for your dog's vociferous expressions of joy you must remember that your neighbors deserve consideration, and if located in a city or closely settled community, some means must be used whereby the noise is checked. The fact that your dog's barking causes you no annoyance is not conclusive proof that it will not arouse your neighbor's resentment, and self-respect should lead you to punish the animal when his noise oversteps certain limits.

I believe it was Byron who wrote:

'Tis sweet to hear the honest watchdog's bark
Bay deep-mouthed welcome as we draw near home.

Byron's sentiments toward "man's best friend" were O. K. Indeed, he has written much in praise of the canine which could not with consistency be said in favor of the *genus homo*. It is doubtful, however, if Byron resided in a neighborhood where fanciers possessing from three to a dozen or more "deep-mouthed watchdogs" were welcomed home by a medley of barks, howls, yelps and yowls; but if so, and he withstood the pandemonium and then saw fit to give vent to the above lines, he certainly was a dyed-in-the-wool fancier whose equanimity could not be disturbed by any sounds which issued from canine throats. Furthermore, he could not have been a dweller in the city, with four or five noisy, lawless brutes to

THEY "BELONG."

keep him constantly on the run striving to subdue their strident voices and keep on a peaceful footing with his neighbors. Nor is it likely that when in the still hours of the night a mournful howl emanated from the throat of one of his canine songsters and floated in sinister discord like a miasmatic mist athwart the senses of the troubled sleepers, the exasperated Byron, after stubbing his toes a couple of times and arming himself with sundry lumps of firewood, coal, etc., raised the window and by a miscalculation fired a burly lump of coal through the glass in the upraised window sashes instead of through the aperture beneath. At such times the sweetness of the songster's voice is apt to be drowned by the fervent prayers to which the fancier gives utterance and the flutelike notes of the dog's upper register are wasted on an unappreciative and highly condemnatory audience.

Then there are other ways in which canines may bring themselves into disfavor through an undue desire to exercise their vocal chords. For instance, an inoffensive party, oblivious to surroundings and deep in thought, meanders peaceably along the highway, when suddenly he is confronted by a brazen-voiced brute which rushes up to him as if he were about to tear him into shreds. Of course the owner's ejaculation, "That's all right—he won't hurt you!" is apt to be very reassuring at such a time, but it is likely that the aforementioned party, possessing none of the finer sentiments of the true fancier, would much rather possess a good, stout club than to have the owner's assurance of his dog's peaceful intention; armed with the former, he probably would waste little time in parley. Barking at passing vehicles is a favorite pastime of some dogs and many runaways are caused in this manner. Bicycle riders also come in for their share of attention and nothing is more exasperating to a wheelman than to be pursued by a snarling dog which keeps out of reach of his heels and causes him to be constantly on the alert lest he be bitten. Dogs which chase stock are abominations and should be dealt with in a harsh manner. Such action on the part of a dog may cause the ruination of valuable cattle and the death of large numbers of sheep, which become panic-stricken and are apt to run until thoroughly exhausted.

In all cases where it is deemed necessary to chastise the dog for barking you should catch him in the very act so that he can not fail to comprehend why he is being punished. Do not continually order him to desist without applying punishment, as finally he will believe that your commands are meaningless and will pay no attention to them. In ordinary cases a mild application of the whip is generally sufficient to check undue barking, but if the dog persists in his vocal demonstrations you should increase the severity of the applications until he is thoroughly well behaved. Do not punish the dog severely one day for slight infractions and overlook his noise the next, but apply punishment in an equable manner until he is inclined to heed your commands.

Another disagreeable trait of some dogs is that of jumping against a person or rearing up and placing the forepaws on his clothing. In some instances the dog applies force enough to seriously injure one, and as the fault is easily corrected, he should be taught his proper position in life, which is with all four feet on the ground. The use of a switch applied on the dog's nose is one way of correcting this fault; another is to grasp his forefeet when he rears up against you and step on his hind feet. Of course the dog will jump about in an endeavor to get away, but he should be held for a half minute or more so that the correction he receives will be lasting in effect. It is not necessary to say a word to him in reproof, as common sense will soon teach him to keep his feet on the proper level and thus avoid punishment.

In conclusion, it is well to remember that in the correction of faults, infractions of rules should be visited by punishment equably applied. Furthermore, a trainer should brook no second refusal to obey a command, but should enforce it on the spot. Remember, however, that under no circumstances should you give an order when the probabilities are that the dog will refuse to obey and you have no means at hand to enforce it. Such experiences serve to stimulate the animal to continual disobedience and it were far better to remain silent under the circumstances than to reveal to the dog your lack of compulsory means by which he can be forced to obey your orders.

FAST FRIENDS.

The Season's Dog Shows

FIRST ANNUAL BENCH SHOW, VANCOUVER KENNEL CLUB.

The first annual bench show under the auspices of the Vancouver Kennel Club will go down in dog fanciers' history as one of the most successful ever held in the Northwest. The exhibits included every variety of dog, the showing being especially noteworthy in the large breeds. In number, English setters were to the fore, with collies following closely. From American cities, it is estimated that there were a hundred dogs, Seattle sending the largest number, with Portland second and San Francisco a close third. For three days, March 31 and April 1 and 2, lovers of the canine thronged the exhibition hall, admiring the graceful, well-bred animals, and watching the judging with only that interest possible in the animal fancier. Arduous, indeed, were the duties of the judges, Mr. E. Davis of Dewdney, B. C., and Mr. R. Williams of Vancouver, but their decisions were on the whole generally accepted with appreciation. From every standpoint, the show was a success, principally due to the untiring zeal of the secretary, Mr. George J. Dyke, and his associates, the following officials of the Vancouver Kennel Club: Honorary President, Colonel Edwin Dudly; president, John J. Tulk; first vice-president, Colin F. Jackson; second vice-president, C. M. Rolston; treasurer, A. J. Mayo; secretary, George J. Dyke; executive committee, N. F. Lyne, H. E. Padmore, C. Cocking, C. Herman, Michael Fitzpatrick; bench show committee, John J. Tulk, A. J. Mayo, H. S. Rolston, Wentworth Sarel, R. P. Forshaw, Edgar Durkee, Colin F. Jackson, George J. Dyke; superintendent, Chris. Barker; veterinary surgeon, Dr. J. B. Hart.

THE AWARDS.

St. Bernard—Novice class: First, Rover, G. Schwartz; second, Jarra, John Decker. Limit dogs: Nero, A. F. Barber. Open dogs: First, His Highness, W. F. Hall; second, Rover. Novice bitches: First, Lady Justin Kennedy, also first in limit bitches and open bitches.

Bloodhounds—Open dogs: First, Tom; second, Bruce. Open bitches: First, Dino; second, Queen; all belonging to John Murray.

Great Danes—Open dogs: First, Remus, G. W. Seymour; second, Lyon, P. Larson; third, Romeo, L. R. Cohn; V. H. C., Jumbo, A. Schwan. Open bitches: First, Victoria, J. W. Prescott.

Greyhounds—Novice dogs: First, Teddy, L. H. Cohn; second, Sport, Ed Blackmore. Open dogs: First, Teddy; second, Sport; third, Star, A. L. Harrington; V. H. C., Etzel, G. W. Grimstone. Novice bitches: First, Nellie, Harry Wilson; second, Vancouver Queen, D. E. Johnston.

Irish Water Spaniels—Novice dogs: First, Burrard Pat, H. Taylor; second, Burrard Brady, Burrard Kennels. Limit dogs: Burrard Pat. Open dogs: Burrard Pat; second, Ch. Our Chance, Burrard Kennels; V. H. C., Burrard Brady. Novice bitches: First, Burrard Billy Malone, Burrard Kennels. Limit bitches: First, Burrard Kitty, Burrard Kennels. Open bitches: First, Burrard Rowdy Girl, Burrard Kennels; second, Kennel, Burrard Kennels.

Field Spaniels—Puppies: First, Night Lathe, L. R. Rice; second, Empress R., John McArthur; third, Vancouver Van, David C. Lew. Open dogs: First, Trip, W. H. Walton; second, Eno, Ormond Blair. Open bitches: First, Nell, R. L. Rice; second, Nellie, Alex Turnbull.

Gordon Setters—Puppies: First, Prince, W. A. Johnston; second, Rex. Arthur Sanigar. Novice dogs and bitches: First, Sport, R. J. Porter; second, Prince, Fred W. Walker; third, R. Victor, F. T. Shelbourne; V. H. C., Mack, C. A. Godson. Open dogs: First, Sport; second, Fred; third, Victor; R. Bang, S. L. Betts; V. H. C., Mack. Open bitches: First, Sport, R. D. Cowan.

Fox Terriers—Puppy dogs: First, Sunshine All White, Sunshine Kennels; second, Tatters, Mrs. R. A. Shepherd; third, Foxy, J. R. Saunders. Novice dogs: First, Puget's Speedy, J. G. Morgan; second, Sunshine All White; third, Foxy; R. Uncle Tony, W. A. Gallaghan. Limit dogs: First, Puget Speedy; second, Cadger of Oaks, W. F. Hall; third, Sunshine All White; R., Uncle Tony. Open dogs: First, Puget Speedy; second, Nicola Daddy, J. G. Morgan; third, Cadger of Oaks; R., Sunshine All White. Puppy bitches: First, Vex, J. A. Saunders; second, Woodlawn Dotty Dimple, John Bradshaw; third, Queen of the Haren, R. P. Forshaw. Novice bitches: First, Woodlawn Dotty Dimple; second, Queen of the Harem; third, Sunshine Trixy; R., Romily Patricia; H. C., Daisy, Leo Will. Limit bitches: First, Vex; second, Woodlawn Motto, John Bradshaw; third, Queen of the Harem; R., Sunshine Trixy; H. C., Daisy. Open bitches: First, Vex; second, Millstream, John Bradshaw; third, Queen of the Harem; H. C., Daisy.

Fox Terriers, Wire Haired—Fox terriers (smooth): First, Millstream, Woodlawn Motto, Woodland Dotty Dimple, all belonging to John Bradshaw. Puppy dogs: First, Romily Blacksmith, Romily Kennels. Novice dogs: First, Bolton Wood's Ben, Robert Wrightson; second, Romily Blacksmith; third, Charlton Bristles, S. G. Bowley; R., Tim, Cyril McNeill. Limit dogs: First, Regal, Alexander Buchanan; second, Sunshine Elf, Sunshine Kennels; third, Charlton Bristles; R., Aldon Master, Romily Kennels. Winners' class dogs: First, Sunshine Phyllis, Sunshine Kennels; second, Woodlawn Dolly Varden, John Bradshaw. Novice bitches: First, Norfolk Peggy, Alexander Buchanan; second, Somersol Rosebud, Robert Wrightson; R., Sunshine Phyllis. Limit bitches: First, Sunshine Phyllis; second Woodlawn Dolly Varden. Open bitches: First, Norfolk Peggy; second, Somersol Rosebud; third, Milligate Kitty; R., Sunshine Phyllis.

Bull Terriers—Novice dogs: First, Roderick Dhu, A. M. Johnston. Open dogs: First, Bonnie Bred Stilleto, F. E. Watkins; second, Walter, H.

ZOLA MONTEZ—C. W. MINOR, OWNER.

ROY'S LAST MONTEZ—C. W. MINOR, OWNER.

WANDEE REVELRY—GEO. FLORENCE, OWNER.

BOLIN'S DUKE—W. B. COUTTS, OWNER.

ROCKLINE YOUNG ROY—MISS W. M. DAVIE, OWNER. . .

ROD OF FURNESS—F. W. SCHNOTER, OWNER.

SOME REPRESENTATIVE WESTERN DOGS.

Keown. Open bitches: First, Newmarket Baby, F. G. Watkins; second, Jeane, Mrs. A. M. Rosenberg.

Boston Terriers—Tige, S. Clayton Leonard. Open bitches: First, Tige.

Aredale Terriers—Open dogs: First, Tiger, C. Bruce. Open bitches: First, Sally Marvel, R. M. Palmer.

Irish Terriers—Puppy dogs: First, Whiskey; second, Soda; both belonging to C. F. F. Taylor. Limit dogs: First, Bolton Woods Despot, William Ollard; second, Woodlawn Irish, Mrs. W. R. Whittier; third, Tramore Pat, C. F. F. Taylor; R., Naylor, Reginald E. Hanson. Open dogs: First, Woodlawn Irish; second, Tramore Pat; third, Naylor; R., Whiskey; V. H. C., Soda. Puppy bitches: First, Irish Polola, Miss A. Turner. Novice bitches: First, Nora, W. Gilbert. Limit bitches: First, Kate Kearney; second, Tramore Biddy; third, Nora; R., Biddy, Hugh Orr; Kennel, C. F. F. Taylor.

Scotch Terriers—Open dogs: First, Garry, Archibald Rowan.

Bedlington Terriers—Open dogs: First, Dan, Miss E. M. Turner.

Black and Tan Terriers—First, Prize Tiny, George Wagg.

Cocker Spaniels—Puppy dogs: First, Victoria Jack, Dr. Garesche. Novice dogs (black): First, Duke Royal, Ronald G. Gamwell; Deer Park Duke, C. H. Atzell. Limit dogs (black): First, Mepals Sazon, Portland Cocker Kennels; second, King Pluto, George J. Dyke; third, Duke Royal; V. H. C., Deer Park Duke. Open dogs (black): First, Mepals Sazon; second, King Pluto; third, Duke Royal; V. H. C., Deer Park Duke. Novice dogs: First, Bobs, R. F. Finch; second, Red Bobs, Vancouver Cocker Kennels; third, Red Duff, Miss Leak. Limit dogs (other than black): First, Pepper, G. H. Roome; second, Red Bobs; third, Red Duff. Open dogs (other than black): First, Bobs; second, Pepper; third, Red Bobs; V. H. C., Red Duff. Puppies (parti-colored): First, Wm. McKinley, Colonel L. G. Dudley. Novice dogs (parti-colored): First, Wm. McKinley. Limit dogs (P. C.): First, Ben Oro, C. W. Sharples; second, Portland Kid, Portland Cocker Kennels; third, Wm. McKinley. Open dogs (P. C.): First, Bud Zunts, C. W. Sharples; second, Portland Kid. Novice bitches (black): First, Sadie O'Grady, Albert M. Johnston; second, Queen, Harry Hooper. Limit bitches (black): First, Sadie O'Grady; second, Portland Zaza; V. H. C., Queen. Puppies, bitches (other than black): First, Peg Woffington, Edgar Durkee; second, Princess Zelma. Novice bitches (O. T. B.): First, Floss, R. F. Winch; second, Peg Woffington; third, Princess Zelma; V. H. C., Golden Queen. Limit bitches (O. T. B.): First, Portland Twinkle. Open bitches (O. T. B.): First, Lillian Ray, Colonel Dudley; second, Portland Twinkle; third, Victoria Pippin; V. H. C., Princess Zelma. Limit bitches (P. C.): First, Freckles, C. W. Sharples. Kennels Cockers: First, C. W. Sharples; second, Portland Cocker Kennels.

Collies—Novice dogs: First, Glen Tana Monk, Thomas S. Griffith; second, Glen, H. Brook; third, Bobs, John J. Shaw; V. H. C., Princess Lil, Robert Patterson. Limit dogs: First, Glen Tana Monk; second, Ravenswood, Arthur Letts; third, Glen Tana Sentinel, Thomas H. Griffith; V. H. C., Jim. Open dogs: First, Ravenswood, second, Glen Tana Sentinel; third, Lord Roberts; V. H. C., Eck. Novice bitches: First, Glen Tana Black Baby, Thomas H. Griffith; second, Queen, William Rosie; third, Lassie, W. Walker. Limit bitches: First, Rippowaino Bopeep, Thomas S. Griffith; second, Glen Tana Black Baby; third, Fair Maid of Perth, A. M. Spratt. Open bitches: First, Rippowaino Bopeep; second, Fair Maid of Perth.

Old English Sheep Dogs—First, Whip, William Braid.

Dalmatians—Open dogs: First, Van, C. T. W. Little. Open bitches: First, W. Whinnie, C. T. W. Little.

Bulldogs—Open dogs: First, King's Commands, H. B. Pabst. Open bitches: First, Her Majesty of Charlecombe, N. J. Stewart.

Pointers—Novice dogs: First, King Sol, R. M. Palmer; second, Tom, William McGirr. Limit dogs: First, Oregon Lad, G. S. Wilband; second, Wotton Bang, J. T. Moon; third, King Sol; R., Tom; V. H. C., Jerry, William McGirr. Open dogs: First, Oregon Lad; second, Minnesota Joe, H. F. Ziggler; third, Wotton Bang; R., King Sol; V. H. C., Tom. Winners' class: Oregon Lad. Novice pointer bitch: First, Scott's Dot, J. C. Scott; second, Fan, H. Burgess. Winners' class, open bitches: First, Scott's Dot; second, Fan.

English Setters—Puppy dog: First, Stylish Sargent II, John Riplinger; second, Real John Paul, Paul Brosted; third, Brockton Val's Brown, J. L. G. Abbott; V. H. C., Don Dee, A. G. Tulk; Real John II, San de Fuca Kennels; H. C., Johns, Rev. G. C. Smith. Novice dogs: First, Tirphil's James, T. P. McConnell; second, Stylish Sargent II; third, Real John Paul; R., Brockton Val's Baron; V. H. C., Drummer, W. Leak; Joe, Donald Kirk; Toss, L. A. Lewis; Rev, Mrs. A. G. Thynne, John's Rex; Assinaboine, Rodfield; Hickory, Gladstone; Creery's Grouse, A. C. McCreery; H. C., Capilano Dan; C., Tuca, R. A. S. Wilson. Limit dogs: First, Stylish Sargent, Hon. John Riplinger; second, Triphil's James; third, Duke; R., John's Rex; V. H. C., Creery's Grouse, Vancouver Joe, Veldt, Lord Clifford, Grouse. Open dogs: First, Stylish Sargent; second, Rico, M. Fitzpatrick; V. H. C., Rex, McCreery's Grouse, Veldt, Toss. Puppy bitches: First, Trixie, William McNeush; second, Glory, T. H. Turnill. Novice bitches: First, Turphil's Judith, T. P. McConnell; second, Sargent's Dot, C. F. Young; third, Toby's Val, Chris. H. Barger; V. H. C., Beech, Grover Belle, Grandy Farrant, Trixie, Burrard Flash Light; H. C., Glory. Limit bitches: First, Pera, Hon. John Riplinger; second, Turphil's Judith; third, Winnie Wind'em, M. Fitzpatrick; R., Sergent's Dot; V. H. C., Burrard Flashlight, New Wind-'em, T. Plimley; C., Glory. Open bitches: First, Pera; second, Turphil's Judith; third, Winnie Wind'em; R., Toby's Val; V. H. C., Burrard Flashlight, Rod's Val. Winners' class bitches: Pera. Setter kennel: First, Hon. John Riplinger; second, Burrard Kennels.

Irish Setters—Novice dogs and bitches: First, Jeannot, Johann Wolffsohn; second, Jack, Mrs. C. B. Green; third, Kim, Dr. J. B. Hart; R., Puppy, Lipiano Gonzales; V. H. C., Dan O'Enawver. Limit dogs: First, Jeannot; second, Sanco; third, Patrick, J. J. Cotton; R., Mike, G. Joy; V. H. C., Tim L., J. H. Vidal. Open dogs: First, Jeannot; second, Jack; third, Mike, R. Patrick; V. H. C., Puppy; Tim L., Kim. Limit bitches: First, Nellie, Mrs. S. Creech; second, Dawn, S. Shultz. Open bitches: First, Nellie; second, Peg; third, Dawn.

Daschunde—Open bitches: First, Tackel, H. Brurin.

Pugs—Open dogs: First, Pat, Miss E. Pauline Howe; second, Jerry, Miss Mackenzie; third, Goldsind, Mrs. Alex. H. Smith.

Dandie Dinmont Terriers—Limit dogs: First,

Swanpool Hector, Colin F. Jackson; second, Giffnock Wanderer, R. Martin; third, Skookum Raider, C. J. Peters. Open dogs; First, Swanpool Hector; second, Giffnock Wanderer; third, Skookum Raider. Limit bitches: First, Giffnock Wobble, Robert Martin; second, Skookum Kelple, Colin F. Jackson. Open bitches: First, Giffnock Wobble; second, Skookum Kelpie.

Pomeranians—Open dogs: First, Roy, E. Henderson; second, Guess, Miss Mamie Quann. Open bitches: First, Tootsie, Miss Mamie Quann.

Japanese Spaniels—Novice dogs: First, Honey, Florence Bailey. Open dogs: First, Honey.

Yorkshire Terriers—Open dogs: First, Burrard Cricket, Burrard Kennels. Open bitches: Creole Belle.

Miscellaneous class—Open dogs under twenty pounds: First, Major, Mrs. A. D. Sykes; second, French Poodle Dandy, A. F. McKinnon; third, Whiskey, Miss E. Wentworth Sarel. Open bitches, under twenty pounds: First, Daisy, A. F. McKinnon. Winners' class: Major.

Third Annual Bench Show, Victoria Kennel Club.

With a yelping of many dogs of different breeds and conditions, the Victoria Kennel Club threw open the doors of its third annual bench show on April 6, and for four days the scale of kennel music was heard with variations. At 1:30 on the afternoon of the sixth, judging commenced, and was continued throughout the following day, being keenly followed by local and visiting dog fanciers. Entries were large, especially in the cocker, fox terrier and English setter classes, the former having the record number for a show under the auspices of the Victoria Kennel Club, there being sixty-three of all kinds, black, parti-colored and solid colors other than black. A feature of the show, and a noteworthy one, was the large number of collies entered. In former years this type of dog was conspicuous by his absence, or rather by his limited presence, a circumstance which last year's judge, Wesley Mills, deeply deplored, and in no uncertain voice let it be known. From the better showing apparent this year, his remarks were hearkened unto and appreciated, Spokane and Los Angeles benching such splendid representatives of the breed as Glen Tana Sentinel, Glen Tana Monk, Reppowam's Bo Beep and Ravenswood.

In point of numbers, next to the cockers came the terriers, smooth and wire-haired, Irish, bull and Scotch. In the smooth-coated class, Wandee Revelry, owned by George Florence, Victoria, and a product of the Wandee Kennels, California, was made a champion, downing Mrs. J. J. Bostock's Ch. Reminiscence, winning all specials, and firsts in open, limit and winners'. A recent wire-haired importation from England, Bolton Wood's Ben, and owned by Mr. Robert Wrightson of Seattle, had winning points which downed all opposition, taking three firsts and three specials, also the Bradley Dyne cup for the best wire-haired fox terrier in the show. The dog is a splendid animal, with natural, close wire coat, short ears, good legs and feet, with straight front, and a credit to Pacific Coast dogdom. In Scotch terriers, Mrs. Bradley Wyne carried off all the honors, her string being invincible, while she divided honors in the Irish terrier classes with Mrs. W. R. Whittier, San Francisco, whose Woodlawn Irish took firsts in open and winners'.

THREE GOOD ONES.

"MISS CUMMINGS"—J. E. TERRY, OWNER.

"FAIRLAND DUDE" (77221)—W. J. BAUGHN, OWNER.

COUNT GLADSTONE—JESSE SHERWOOD, OWNER.

As I have already stated, cockers had the largest representation; but the mere point of numbers gives no conception of the excellence of the exhibits. Mepal's Saxon, Portland Cocker Kennels, one of the most beautiful black cockers in existence, captured everything in open and winners', also the special for the best cocker in the show. In open and winners' bitches, Wandering Beauty, belonging to John Close, Mission City, took firsts; and in all other classes except the limit, which was won by George Dyke's Pluto, Dr. A. J. Garesche's dogs and bitches carried off the blue ribbons. In solid colors other than black, Portland Dick, owned by Mrs. J. W. Creighton, Victoria, took firsts in open and winners' dogs; with Portland Twinkle, Portland Cocker Kennels, firsts in open and winners' bitches.

Coming to the Irish setters, a comparatively young dog, Micky Green, took first in novice, limit and open, defeating his father, Ch. Hector. Owing to a dispute, the class was judged twice. On the first occasion, the dogs were handled by strangers, but the second time they were handled by their owners. The result, however, was the same, the dogs being placed in exactly the same order as at first.

During the judging of the English setters there was considerable excitement exhibited, for in that class the closest competition was expected, there being such famous dogs as Zola Montez, owned by C. W. Minor, Ch. Albert's Rosalind and Count Rego, owned by T. P. McConnell, and Ch. Elloree and Ch. Pera, owned by Hon. John Riplinger, Seattle, and it was only after a most lengthy and minute examination of the canines that the judge rendered his decisions. In winners' dogs, Count Rego was placed first, with Zola Montez first in winners' bitches; and when these two came together, the judge decided in favor of the latter. In the puppy class the judge spent some time in deciding between two winning champions, Roy's Last Montez, owned by C. W. Minor, and Rockline Young Roy, owned by Miss W. M. Davie, Victoria, both sired by Ch. Roy Montez, lately poisoned. Another of his blood, Rod of Furness, owned by F. W. Schuster, took firsts in novice and limit.

In the judging of Irish setters, fox terriers and English setters, there was considerable dissatisfaction displayed over the awards, the losers in several instances exhibiting much warmth, which was hardly warranted, even though they felt the decisions to be unjust. For thirty-two years the judge, Mr. John Davidson of Munroe, Mich., has traveled over the United States and Canada, judging all classes, and his reputation as such is an enviable one. They say he is growing old, which is true, but a chat with him will demonstrate that his knowledge and skill are still as acute as ever. If a man with his experience is not qualified to pick a winner, who is?

Upon the splendid showing made, the large number of aristocratic entries, the marked improvement in the general tone of the show over former years, Secretary McConnell and his indefatigable assistants are to be congratulated. The officialdom of the Victoria Kennel Club includes the following: President, J. W. Creighton; vice-president, J. J. Bostock; secretary, T. P. McConnell; honorary treasurer, T. Plimley; board of directors, G. F. Dunn, W. Atkins, R. R. Watson, T. Astle, George Florence; bench show committee, J. Angus, C. W. Minor, J. R. Saunders, Dr. Garesche, C. A. Goodwin; superintendent, Frank Turner; veterinary surgeons, Drs. Hamilton, Tolmie and Richards.

Appended is a list of ribbon-winning dogs and their owners:

Mastiffs—Novice, limit and open dogs: First, Major, R. H. Whidden, Duncans.

St. Bernards—Novice dogs: First, Rex, George Brownlee, Victoria; second, Argo, Captain Gardiner, Victoria. Limit dogs: First, Rex; second, Argo; third, Victoria Chief, Mrs. H. E. Davies. Open dogs: First, Rex; second, His Highness, W. F. Hall, Victoria. Novice bitches: First, Gemma, C. W. Duck, Victoria. Limit bitches: First, Gemma. Open bitches: First, Gemma. Winners dogs: First and special, Rex. Winners bitches: First, Gemma.

Greyhounds—Open dogs: First, Jeff, Dr. G. L. Milne, Victoria; second, Rob Roy, Miss V. J. Wilson, Victoria.

English Setters—Puppy dogs: First, Roy's Last Montez, C. W. Minor, Victoria; second, Rockline Young Roy, Miss W. M. Davie; third, Stylish Sergeant II, John Riplinger, Seattle; V. H. C., Reno, T. Dacy, Seattle; H. C., Washington, E. G. Smith, Seattle; C., Island Chief, T. Plimley, Victoria. Novice dogs: First, Rod of Furness, F. W. Schnober; second, Roy, E. D. Todd, Victoria; third, Ventor, T. Astle; V. H. C., Spot, Dr. J. C. Davie, Victoria; H. C., Real John Paul, Paul Brosted, Seattle; C., Island Chief. Limit dogs: First, Rod of Furness; second, Tirphil's James, T. P. McConnell; third, Diamond, A. S. Robertson, Victoria; V. H. C., Major Ben, F. W. Stevenson, Victoria; H. C., John's Rex, E. G. Smith. Open dogs: First, Count Rego, T. P. McConnell; second, Stylish Sergeant; third, Tirphil's James. Puppy bitches: First, Mollie C., D. E. Campbell, Victoria. Novice bitches: First, Fanilla, T. P. McConnell; second, Dollie Redfield, R. M. Palmer, Seattle; third, Victoria Dell, W. H. Hart, Victoria; V. H. C., Mollie C. Limit bitches: First, Zola Montez, C. W. Minor; second, Fanilla; third, Tirphil's Judith, T. P. McConnell. Open bitches: First, Zola Montez; second, Ch. Elloree; third, Ch, Albert's Rosalind, T. P. McConnell. Winners dogs: First, Count Rego; R., Stylish Sergeant. Winners bitches: First, Zola Montez; R. Ch. Elloree. Field trial class: First, Roy's Lady, Miss W. M. Davie.

Irish Setters—Puppy dogs: Don, O. E. Mauer, Seattle. Novice dogs: First, Micky Green, A. Fairfull, Victoria; second, Doe, F. G. Maynard, Victoria. Limit dogs: First, Micky Green; second, Jeannot, J. Mulffsohn, Vancouver; third, Mike, George Jay, Victoria. Open dogs: First, Micky Green; second, Ch. Hector, Dr. A. J. Garesche; third, Kim, W. G. Malloy, Spokane; V. H. C., Mike; H. C., Tim, R. G. Monteith, Victoria. Novice bitches: First, Hatley Kitty, J. McInnery, Victoria; second, Girlie, W. H. Peter, Maywood. Limit bitches: First, Hatley Kitty; second, Girlie; third, Nellie, S. Creech, Victoria. Open bitches: First, Hatley Kitty; second, Nellie. Winners dogs: Micky Green. Winners bitches: Hatley Kitty.

Gordon Setters—Puppy dogs: First, Bemont Jr., S. W. Bodley, Duncans second, Frisk, S. W. Bodley; third, Grouse, S. W. Bodley. Novice dogs: First, Robin, H. A. Porter, Victoria; second, Bruce, A. C. Roberts, Victoria; third, Jerry, A. Wood, Victoria; V. H. C., Remont Jr.; H. C., Frisk. Limit dogs: First, Don, W. Winsby, Victoria; second, Sport, R. Porter, Victoria; third, Remont Jr. Open dogs: First, Don; second, Jerry, D. C. Isbister, Esquimault; third, Sport; R., Kim, P. Pope, Victoria. Novice bitches: Queeney, H. W. Dickie, Duncans; second, Countess Bell, T. C. Smith, Victoria. Limit bitches: First, Queeney. Open bitches: First, Queeney; second, Ch. Heather Nell, S. W. Bodley; third,

Countess Bell. Winners dogs: First, Don; R., Robin. Winners bitches: Queeney.

Pointers—Limit dogs: First, Woolton Bang, F. J. Moore, Salem; second, Oregon Lad, E. S. Wilband, Vancouver. Open dogs: First, Ch. Minnesota Joe, H. F. Zeigler, The Dalles; second, Woolton Bang; third, Oregon Lad; R., King Sol, R. M. Palmer. Novice bitches: Chicago Bess, J. M. Langley, Victoria. Limit bitches: First, Scott's Dot, J. C. Scott, Walla Walla; second, Chicago Bess. Open bitches: First, Scott's Dot; second, Chicago Bess. Winners dogs: Ch. Minnesota Joe. Winners bitches: Scott's Dot.

Irish Water Spaniels—Limit dogs: First, Our Chance, Burrard Kennel's, Vancouver; second, Murphy, George F. Dunn, Victoria. Open dogs: First, Our Chance; second, Murphy; third, Tim D., George F. Dunn. Limit bitches: First, Burrard Rowdy Girl, Burrard Kennels; second, Jane O., H. J. Dunn. Open bitches: First, Burrard Rowdy Girl. Winners dogs: Our chance. Winners bitches: Burrard Rowdy Girl. Special, best in show: Our Chance.

Field Spaniels—Open bitches: Zula, Miss C. Davie.

Clumber Spaniels—Open dogs: First, Chancellor II. Open bitches: Chica. Winners dogs: Chancellor II. All owned by G. F. Dunn.

Cocker Spaniels (black)—Puppy dogs: First, Victoria Jack, Dr. A. J. Garesche; second, Western Boy, John Close; third, Irish, J. Wilson, Victoria. Novice dogs: First, Victoria Jack. Limit dogs: First, King Pluto, George Dyke, Vancouver; second, Tillicum, Miss Perry, Victoria. Open dogs: First, Mepal Saxon, Portland Cocker Kennels; second, King Pluto; third, Willard C., John Close. Puppy bitches: First, Victoria Tiny, Dr. A. J. Garesche; second, Victoria Tot, A. J. Garesche; third, Victoria Gipsy, A. J. Garesche; R., Tess of Craggowan, Miss W. Andrews, Victoria. Novice bitches: First, Victoria Tiny; second, Victoria Tot; third, Princess May, J. W. Creighton; V. H. C., Pansy, C. Setterfield, Victoria; H. C., Jetta, Mrs. L. Humber, Victoria; R., Chloe, S. M. Lamb, Somenos. Limit bitches: First, Victoria Gipsy; second, Chloe; third, Sadie O'Goody, A. Johnston. Open bitches: First, Wondering Beauty; second, Little Dorritt, Mrs. C. A. Goodwin, Victoria; Portland Zaza, Portland Cocker Kennels; H. C., Lady Olive, John Close; R., Chloe. Winners dogs: Mepal Sazon. Winners bitches: Wandering Beauty. Special, best in show: Mepal Sazon.

Cocker Spaniels (any solid color other than black)—Puppy dogs: First, Red Count, H. O. Litchfield, Victoria; second, Rex, D. H. P. Johnson, Victoria; third, Raggie, Charles Letterfield. Novice dogs: First, Red Count; second, Rex; third, Red Bobs, George J. Dyke. Limit dogs: First, Red Bobs. Open dogs: First, Portland Dick, Mrs. J. W. Creighton; second, Red Count; third, Rex. Puppy bitches: First, Little Dodo, Mrs. C. A. Goodwin. Novice bitches: First, Jesmond Pearl, Gladys Creighton; second, Little Dodo; third, Little Duchess, Mrs. Trimmer, Victoria. Limit bitches: First, Jesmond Pearl; second, Pippin, C. A. Goodwin; third, Little Dodo. Open bitches: First, Portland Twinkle, Portland Cocker Kennels; second, Jesmond Ruby, Mrs. J. W. Creighton; third, Pippin; V. H. C., Jesmond Ravend, Gladys Creighton; R., Little Dodo. Winners dogs: Portland Dick. Winners bitches: Fortland Twinkle. Special for best red cocker spaniel owned and bred in British Columbia: Jesmond Pearl.

Cocker Spaniels (parti-colored)—Puppy dogs: First, Obo, Victoria. Novice dogs: First, Obo. Limit dogs: First, Ben Ora, Mrs. C. N. Sharples, Seattle; second, Bonnie Charlie, Miss C. Skinner, Victoria. Open dogs: First, Bud Zunts, Mrs. C. N. Sharples; second, Roney, C. N. Sharples; third, Portland Kid, Portland Cocker Kennels. Puppy bitches: First, Butheta, Mrs. C. N. Sharples. Novice bitches: Gipsy Countess, H. O. Litchfield. Limit bitches: First, Freckles, Mrs. C. N. Sharples. Open bitches: First, Gipsy Countess. Winners dogs: First, Bud Zunts; R., Ben Ora. Winners bitches: First, Freckles; R., Butheta.

Collies (sable and white)—Puppy dogs: First, Prince, J. McIntosh, Victoria; second, Don, Ian Cameron, Victoria. Novice dogs: First, Prince; second, Glen Tana Sentinel, T. S. Griffith, Spokane; third, Laddie, Jack Dowler, Victoria. Limit dogs: First, Prince; second, Ravenswood, A. Letts, Los Angeles; third, Glen Tana Sentinel. Open dogs: First, Ravenswood; second, Glen Tana Sentinel; third, Woodman Sangor, F. Haggard, Victoria. Puppy bitches: First, Queen, W. Rosie, Victoria; second, Glengyle Meg, F. Haggard. Limit bitches: First, Reppowam's Bo Peep, T. S. Griffith; second, Lassie, Rev. E. G. Miller. Open bitches: First, Reppowam's Bo Peep. Winners bitches: Reppowam's Bo Peep. Winners dogs: Prince.

Collies (other than sable and white)—Puppy dogs: First, Glen Tana Monk, T. S. Griffith. Novice dogs: First, Glen Tana Monk. Limit dogs: First, Glen Tana Monk. Open dogs: Glen Tana Monk. Puppy bitches: Glen Tana Black, T. S. Griffith. Novice bitches: Fido, W. Worth, Esquimalt. Special best tri-color collie: Glen Tana Monk. Special best sable collie: Prince.

Bull Dogs—Open dogs: First, King Commancho, H. M. Papst, San Francisco. Special: King Commancho. Open bitches: Her Majesty of Charlecombe, N. J. Stewart, San Jose.

Bull Terriers—Puppy dogs: First, Warder, L. R. Goodacre, Victoria. Limit dogs: First, Bonny Bride Stiletto, F. E. Watkins, Portland; second, Walter, H. Keown, Victoria. Puppy bitches: First, Ladysmith, J. W. Robinson; second, Lopine, J. W. Wolfenden, Victoria; third, White Lady, J. Wolfenden. Novice bitches: First, Lopine; second, White Lady. Limit bitches: First, Newmarket B., F. W. Watkins, Portland; second, Lopine; third, White Lady. Open bitches: First, Newmarket Baby, F. W. Watkins; second, Lopine; third, White Lady.

Fox Terriers (smooth coated)—Puppy dogs: First, Fitz, George Florence; second, Remson, Mrs. J. J. Bostock; third, Remington, Mrs. R. Machin. Novice dogs: First, Puget Speedy, J. G. Morgan, Seattle; second, Fitz; third, Remson. Limit dogs: First, Wandee Revelry, George Florence; second, Puget Speedy; third, Remson. Open dogs: Wandee Revelry; second, Puget Speedy; third, Voli, J. J. Bostock. Puppy bitches: First, Vic, J. K. Angus, Victoria; second, Vex, J. R. Saunders, Victoria; third, Jewel, George Florence. Novice bitches: First, Dot, J. K. Angus; second, Jewel; third, Beulah, George Florence. Limit bitches: First, Dot; second, Dottie Dimple, J. Bradshaw, San Francisco; third, Beulah. Open bitches: First, Vic; second, Vex; third, Ch. Reminiscence, Mrs. J. J. Bostock. Winners dogs: Wandee Revelry. Winners bitches: Vic.

Fox Terriers (wire-haired)—Puppy dogs: First, Romilly Blacksmith, George A. Walkem, Vancouver; second, Westaldon Quirt, W. C. Adam, Monte Creek. Novice dogs: First, Bolton Woods Ben, R. Wrightson, Seattle; second, Romilly Blacksmith. Limit dogs: Bolton Woods Ben; second, Westaldon Quirt. Open dogs: Bolton

Woods Ben; second, Aidon Master, Romilly Kennels, Vancouver; third, Westaldon Quirt. Novice bitches: Millgate Kitty, R. Wrightson; second, Gomersol Rosebud, R. Wrightson. Limit bitches: First, Millgate Kitty; second, Gomersol Rosebud. Open bitches: First, Morengo, J. G. Morgan, Seattle; second, Millgate Kitty; third, Gomersol Rosebud. Winners dogs: Bolton Woods Ben. Winners bitches: Morengo.

Scottish Terriers—Puppy dogs: First, Black Ruffian, Mrs. Bradley Dyne. Novice dogs: First, William, Mrs. Bradley Dyne; second, Georgia, W. E. Oliver. Limit dogs: First, Brittle Brush, Mrs. Bradley Dyne; second, Tatters, Miss E. Skinner; third, Georgia. Open dogs: First, Ch. Loyne Ruffian, Mrs. Bradley Dyne; second, Georgia. Puppy bitches: First, Saanich Shortcake, Mrs. Bradley Dyne. Open bitches: First, Saanich Princess Ora, Mrs. Bradley Dyne. Winners dogs: Ch. Loyne Ruffian. Winners bitches: Saanich Princess Ora.

Irish Terriers—Puppy dogs: First, Saanich Brickdust, V. Schwabe, Victoria. Novice dogs: First, Rikki Tikki Tavi, Mrs. Gray, Saturna; second, Saanich Brickdust. Limit dogs: First, Nipper, R. C. Hall; second, Sanaich Mixit, Mrs. Bradley Dyne. Open dogs: First, Woodlawn Irish, Mrs. W. R. Whittier, San Francisco; second, Nipper. Puppy bitches: First, Irish Polola, Mrs. A. R. Turner; second, Saanich Sweetheart, Mrs. Bradley Dyne; third, Gipsy Kora, Miss Flumerfelt. Limit bitches: First, Saanich Irish Poplin, Mrs. Bradley Dyne. Open bitches: First, Saanich Doreen, Mrs. Bradley Dyne. Winners dogs: Woodlawn Irish. Winners bitches: Saanich Irish Poplin.

Bedlington Terriers—First, Dave, Miss M. Turner.

Airedale Terriers—First, Lady Marvel, R. M. Palmer, Seattle.

Retrievers—Open dogs: First, Black Rock, T. Astle.

Blenheim Spaniels—Open dogs: First, Charley; second, Lilley; both belonging to Mrs. J. Plimley.

THE SEATTLE BENCH SHOW.

The ninth annual exhibition of the Seattle Kennel Club was held at Madison Park Pavilion on April 13-16, 1904, and was one of the most successful shows ever given by the Kennel Club. With the removal of the old Armory, where the shows have been held for years past, the club was at a loss for a suitable building in which to hold the show. A large tent was seriously considered for a time, but to that plan so many objections were raised that it was finally abandoned. Germania Hall—the largest hall available—was entirely inadequate, and while the executive committee were at their wits' end in the matter, the proprietor of Madison Park pavilion came forward with his liberal offer of free rent as an inducement for the boys to consider the location. It was a problem, and a serious one, just what to do; but after a full and free discussion on the part of the executive committee in session it was decided to hold the show at Madison Park. More than three miles from the business center, reached only by one car line, yet with everything in its favor except distance, the boys took the chance. Would the people go out so far, was the only question, and all sorts of dire results were predicted by the knowing ones. Well, in the face of all the "howlings" of the "know it all" fellow, the people did go out, and "society" gave us her helping hand; as a result our attendance was excellent, and to that extent the club was more than two hundred dollars to the good. The decorations of the pavilion gave a pleasing appearance to the show, and not having a judging ring on the floor of the hall gave the management the opportunity to arrange the kennels with greater consideration for the comfort and accommodation of the public; this with a large seating space in front of the stage where the judging was done, made the hall arrangements all that could be desired.

In his account of the show in the American Field, Judge Watson, who placed the awards, said:

"The officials of the Seattle Kennel Club are a good working lot. Mr. Riplinger is the owner of perhaps the best kennel of English setters on the Coast. His dog, Stylish Sergeant, is revolutionizing things as a stud dog. Mr. McAllister, the secretary, is not a dog man, according to his own account, but he is a mighty good secretary, all the same. The judging was concluded at half-past twelve on the second day, Thursday, and marked catalogues were on sale at half-past five o'clock that evening. A man who does that can be relied upon to have everything else done right and on time.

"The bench show committee, consisting of Messrs. J. A. Peebles, C. B. Yandall, L. B. Youngs, F. A. Pontius and F. W. Gilbert, were always about when needed. Mr. Gilbert will be remembered as of Chicago, and as a ring steward he is hard to beat, and he knows a dog, too; don't forget that. Mr. Pontius was the other ring steward, and he also did good service. But one must know Mr. Peebles, who was also the superintendent. He can get up a more genial smile on the slightest provocation than any man we ever met—a sort of spontaneous combustion smile, which catches one, too, and makes one feel better, no matter how worried you may be. And he knows how to fix a dog show and keep it right."

There were over three hundred and fifty entries and 211 dogs were in the show, aside from those that were entered for sale only.

The English setter class was the feature of the show, and Judge Watson said they were a choice lot. It was certainly a pretty sight to walk along the aisle and see one kennel twenty feet in length, in which were Riplinger's English setter Stylish Sergeant and his bitches Elloree and Pera, all champions, with dozens of wins to their credit, together with ten of Sergeant's get in the same kennel, several of which were in the ribbons. It was a pleasing picture, indeed, and brought forth bursts of admiration from the people as they passed. Charles Donaldson's Field Marshal, one of Real John's get, was a surprise to the English setter men, winning first in the novice and reserve winners and defeating his dad at the Portland show in the open. C. F. Young's bitch Sergeant's Dot also was a surprise to the boys, and in the limit class she was a close second to Riplinger's celebrated Elloree. She also won the cup for the best novice in the show.

In the collies was another class that were of

high standard, T. S. Griffith of Spokane and Arthur Murphy of Seattle taking most of the ribbons. Mr. Griffith certainly has some magnificent specimens, and he is a sportsman, too—the kind of a man that is a powerful element in the encouragement of true, gentlemanly sportsmanship. Too high praise can not be given to such men.

Pointers were few in numbers but there were several good ones shown. The feature of this class was the placing of Woolton Bang, owned by Frank J. Moore of Salem, over Minnesota Joe, owned by H. F. Zeigler of The Dalles. Joe has, prior to this season, been invincible.

Very few Irish setters were shown, it being a surprise to many, for the reason that last season they were well represented. Judge Watson spoke very highly, however, of "Jeannot," owned by John Wullfson of Vancouver, B. C. Water dogs were represented by a goodly number of Irish Water Spaniels and Chesapeakes. Gordon setters were nil as to quality.

Cocker spaniels were out in numbers and quality was in evidence as well. Honors were about evenly divided between Mrs. Sharples of Seattle and E. F. Willis of Portland. The best cocker in the show was exhibited by R. G. Gramwell of Bellingham, a dog fine in cocker characteristics and bred by Mrs. Sharples. Bull terriers were a limited class, being a radical change from last season, when more than twenty specimens were exhibited. The particolored class was well represented, however, and by some mighty good dogs, too.

A surprise it was to the dog men here to see the string of Airedales and Irish terriers that were in the show, and the question was often asked. Where did they all come from? Fred Gilbert had told me prior to the show that he would have a surprise for the boys in way of entries in Airedales and Irishmen, and he certainly kept his word. A fine lot of youngsters they were, too. Fox terriers were strongly in evidence, both in way of numbers and the racket they made. These nervous little fellows are a noisy set, surely! John Morgan's Puget Speedy won right through in all the classes, beating his dad, Niola Daddy, in the open.

The whole show went off without a mistake or even a "kick," and made some money for the club.

The feature of the show in Seattle was the annual meeting of the Pacific Kennel League, now the Western Kennel League. The meeting was held in the Butler Hotel. Eleven clubs were represented. The officers elected for the ensuing year were Julius Redelshiemer of Seattle, president, and Norman J. Stewart of San Jose secretary and treasurer. New rules and regulations were made and adopted and the stud-book of the American Field was made the official stud book of the league.

The success of the Western Kennel League is now assured if the clubs composing its membership will but do their duty and render obedience to its laws and allegiance to the mandates of its officials. In turn should the officers of the Western Kennel League put forth every effort toward the upbuilding of the respective clubs and the encouragement of refined sportsmanship.

Success to the Western Kennel League.

—Chas. McAlister.

THE PORTLAND SHOW.

The Portland Kennel Club held a very successful bench show April 20 to 23, inclusive, the number and quality of entries being in excess of that of former years.

The show was held in the Portland Exposition building, which is well adapted for such purposes, and was conducted in a manner which reflects credit upon the efficient and energetic directorate of the Portland Kennel Club.

Judge Mortimer, who passed upon the merits of the dogs entered in the San Francisco show, judged all classes, and with few exceptions his awards were commendable.

Pointer classes were exceptionally well filled and by dogs of more than average quality, as Oregon is a pointed stronghold and the best individuals of that section are fit to exhibit in any company in America. Oregon Jenie, well known as a winner in San Francisco shows, added materially to her long list of winnings and finally took reserve to Ch. Wandee Coastguard for best dog in the show, the latter being placed above all others as at San Francisco. Fox terriers, English setters and cockers were well represented and helped to swell the total of about 250 dogs which were benched at this show.

Awards were made as follows:

St. Bernards—Dogs, puppies: First, Mrs. L. D. Henderson (Colonel). Limit: First, Mrs. E. A. Baldwin (King Harold); second, Alex Matthews (Samson); third, Mrs. L. D. Henderson (Colonel); V. H. C., C. B. Myers (Jack). Open: First, Sig Sichel (Colonel); second, Mrs. E. A. Baldwin (King Harold); third, C. B. Myers (Jack). Winners: First, Colonel; Res., King Harold.

Great Danes—Dogs, limit: First, Dr. J. C. Zan (Lief); second, Miss L. J. Gallagher (Commodore); third, J. A. Woolery (J. A. W.); V. H. C., L. G. Carpenter (Jasper). Open: First, second, third and V. H. C., repeat. Bitches, open: First, J. G. Morgan (Duchess of York). Winners: First, Lief; Res., Duchess of York.

Foxhounds—Dogs, puppies: First and second, J. Bonser (Racket and Lead). Open: First, S. L. Elliott (Skinner); second, J. Bonser (Spot). Bitches, puppies: First, H. W. Fries (June). Open: First, S. L. Elliott (Nellie). Winners: First, Nellie; Res., Skinner.

Greyhounds—Dogs, limit: Third, Miss E. B. Morris (Dexter). Open: First, J. E. Tilden (Boney Boy); third, Miss E. B. Morris (Dexter). Winners: First, Boney Boy.

Chesapeake Bay Dogs—Bitches, limit and winners: First, W. M. Davis (Oregon Chessa).

Pointers—Dogs, puppies: First, Dr. W. A. Roberts (Andy's Rap); second, F. H. Fleming (Rip II); third, F. Vehring (Sancho). Novice: First, Otto Schuman (Sport); second, Mrs. Sanderson Reed (Zeke); third, C. D. Gabrielson (Rocket); Res., Dr. W. A. Roberts (Andy's Rap). Limit, under fifty-five pounds: First, C. D. Gabrielson (Rocket) second, Dr. W. A. Roberts (Andy's Rap); third, M. Ryan (Oregon Bob); V. H. C., P. Hobkirk (Ted). Limit, fifty-five pounds and over: First, Mrs. S. Reed (Zeke); second, T. E. Daniels (Printer's Devil).

Open, under fifty-five pounds: First, C. D. Gabrielson (Rocket); second, J. A. Taylor (Bright); third, P. Hobkirk (Ted). Open, fifty-five pounds and over: First, F. J. Moore (Woolton Bang). Winners: First, Woolton Bang; Res., Sport. Bitches, puppies: First, J. H. Montgomery (Nellie); second, J. V. Burke (Blossom); third, W. Bubb (Lily Foss). Novice: First, W. Ryan (Miss Tracey); second, F. J. Moore (Moore's Chic); third, J. A. Taylor (Lady Bright); Res., V. H. French (Oregon Beaut). Limit, under fifty pounds: First, F. F. Wamsley (Oregon's Jessie); second, W. Ryan (Miss Tracey); third, F. A. McFaddin (Blondie); Res., J. C. Scott (Scott's Dot). Limit, fifty pounds and over: First, W. F. Halderman (Clatsop Beauty). Open, under fifty pounds: First, F. F. Wamsley (Oregon's Jessie); second, W. Ryan (Miss Tracey); third, J. C. Scott (Scott's Dot); Res., J. A. Taylor (Lady Bright). Open, fifty pounds and over: First, F. F. Wamsley (Oregon's Jessie); second, W. F. Halderman (Clatsop Beauty). Winners: First, Oregon's Jessie; Res., Clatsop Beauty.

English Setters—Dogs, novice: First, C. C. Wise (Don); second, W. L. Pullen (Dash); third, S. McCartney (Prince M.); Res., W. M. Smith (Grover Cleveland); V. H. C., J. E. Clock (Prince). Limit: First, C. W. Donaldson (Field Marshall); second, M. A. Vogt (Vick's Tobe); Third, B. Bogart (Real John); Res., S. McCartney (Prince M.); V. H. C., W. M. Smith (Grover Cleveland). Open: First, J. Riplinger (Stylish Sergeant); second, C. W. Donaldson (Field Marshall); third, M. A. Vogt (Vick's Tobe); Res., B. Bogart (Real John); V. H. C., J. B. Nye (Dude Nye). Winners: First, Stylish Sergeant; Res., Field Marshall. Bitches, novice: First, J. H. Smith (Bess); second, A. W. Nash Empress of Oregon); third, B. Garner (Cash Girl). Limit: First, J. Riplinger (Pera); second, J. W. Gillette (Sylbie); third, J. S. Seed (Queen). Open: First, J. Riplinger (Elloree); second, J. W. Gillette (Sylbie); third, J. S. Seed (Queen). Winners: First, Pera; Res., Elloree.

Irish Setters—Dogs, novice: First and third, T. A. Bingham (Shamrock and Laddie); second, R. Trimble (Lord Roberts). Limit: First and third, repeat; second, Mrs. R. D. Gilbert (Joe). Open: First, Mrs. M. T. Avise (Don); second, Mrs. R. D. Gilbert (Joe); third and Res., T. A. Bingham (Shamrock and Laddie). Winners: First, Don; Res., Joe. Bitches, novice: First, Mrs. M. T. Avise (Daisy). Open: First, A. F. Reid (Trilby). Winners: First, Trilby; Res., Daisy.

Gordon Setters—Limit: First, Dr. J. Cline (Shaker). Winners: Repeat.

Irish Water Spaniels—Dogs, limit: First, E. A. Swift (Branagan); second, Dr. H. F. McKay (Brownie). Open: First, J. W. Beakey (Jack B.); second, E. A. Swift (Branagan); third, Dr. H. F. MacKay (Brownie). Winners: First, Jack B.; Res., Branagan. Bitches, open: First, W. A. Pomeroy (Schley).

Field Spaniels—Puppies: First, M. Abrahamson (Topsy). Limit: First, Mrs. J. S. Pratt (Stupid Jo); second, J. S. Pratt (Nig); third, Myrtle Abrahamson (Topsy). Open: First, second and third, repeat. Winners: First, Stupid Jo; Res., Nig.

Cocker Spaniels—Dogs, puppies: First, J. W. Ladd (Portland Junior); second, L. C. Coulter (Coulter's Patsy); third, A. A. Kadderly (Portland Victor II).* Novice, not over twenty-six pounds: First, J. W. Ladd (Portland Junior); second, Mrs. C. L. Higgins (Portland Black Midnight); third, Barrette Bros. (Portland Victor). Limit, not over twenty-six pounds: First, R. G. Gamwell (Duke Royal); second, J. W. Ladd (Portland Junior); third, Mrs. C. L. Higgins (Portland Black Midnight); Res., Barrette Bros. (Portland Victor). Open, not over twenty-six pounds: First, R. G. Gamwell (Duke Royal); second, Portland Cocker Kennels (Mepal's Saxon); third, J. W. Ladd (Portland Junior); Res., Mrs. C. L. Higgins (Portland Black Midnight); V. H. C., Barrette Bros. (Portland Victor). Winners: First, Duke Royal; Res., Mepal's Saxon. Bitches, not over twenty-six pounds, novice: First, C. H. Walker (Baby); second, Mrs. H. J. Schulderman (Baby Bess); third, C. H. Ford (Lady Babbie). Limit: First, The Portland Cocker Kennels (Portland Zaza). Winners: First, Portland Zaza; Res., Baby. Parti-colored, limit: First, Mrs. C. W. Sharples (Bud Zunts); second, Mrs. E. Newbegin (Portland Tony); third, G. Withrow (Portland Lord Sholto Douglas I). Open: First, The Portland Cocker Kennels (Portland Kid); second, Mrs. C. W. Sharples (Ben Ora); third, Mrs. E. Newbegin (Portland Tony); Res., G. Withrow (Portland Lord Sholto Douglas). Winners: First, Portland Kid; Res., Ben Ora. Bitches, puppies: First, Mrs. C. W. Sharples (Bestheta). Limit: First, Mrs. C. W. Sharples (Pattern); second, The Portland Cocker Kennels (Portland Daisy). Open: First, Mrs. C. W. Sharples (Freckles). Winners: First, Pattern; Res., Bestheta. Any solid color other than black—Dogs, puppies: First, J. F. Jacobs (Yellow Kid). Novice: First, Dr. D. C. Lazier (Portland MacDuff). Limit: First, repeat. Open and winners: First, repeat. Bitches, novice: First, Dr. C. Loveberry (Portland Goldie); second, Mrs. H. Kahn (Tootie). Limit: First, Dr. C. Loveberry (Portland Goldie). Open: First, The Portland Cocker Kennels (Portland Twinkle); second, Dr. C. Loveberry (Portland Goldie). Winners: First, Portland Twinkle; Res., Portland Goldie.

Collies, sable and white—Puppies, dogs: First, G. A. Shield (Colonel Dare); second, Mrs. M. C. Wells (Theodore Roosevelt); third, M. N. Majo (Duke). Novice: First, Mrs. M. C. Wells (Theodore Roosevelt); second, Miss G. Giesler (Victor); third, J. Kruse (Shadeland Sparta). Limit: First, A. Letts (Ravenswood); second, Shields Bros. (Shadeland Fidget); third, C. D. Nairn (Lass O'Gowrie). Open: First, repeat. Winners: First, Ravenswood. Bitches, puppies: First and second, withheld; third, M. J. Myers (Patsey). Limit: First, T. S. Griffith (Rippowam's Bo-Peep). Open: First, repeat. Winners: First, Rippowam's Bo-Peep; res., Shadeland Fidget. Other than sable and white—Dogs, puppies: First, T. S. Griffith (Glen Tana Monk); second, C. D. Nairn (Brandane Rob Roy); third, F. Leake (Prince). Limit: First and second, T. S. Griffith (Glen Tana Marquis and Glen Tana Monk); third, H. G. Smith (Sunshine Highway). Open: First and second, T. S. Griffith, repeat; third, Dr. M. C. Strickland (Shadeland Rab). Winners: First, Glen Tana Marquis; Res., Glen Tana Monk. Other than sable and white—Puppies: First, T. S. Griffith (Glen Tana Black Baby). Limit: First, repeat. Open: First, repeat; second, C. D. Nairn (Artistic Emerald Eclipse). Winners: First, Glen Tana Black Baby; Res., Artistic Emerald Eclipse.

Bulldogs—Limit: First, Mrs. C. K. Harley (Ivel Damon); second, N. J. Stewart (Her Majesty of Charlecombe); third, P. Grant (Miss Shorty). Open: First, Mrs. C. K. Harley (Ivel Damon); second, P. Grant (Miss Shorty). Winners: First, Ivel Damon; Res., Her Majesty of Charlecombe.

Bull Terriers—Dogs, novice: First, C. Doty (Oak Jack). Limit: First, F. E. Watkins (Bonnybred Stiletto). Open and winners: First, re-

peat; Res., Oak Jack. Bitches, novice: First, J. L. Tetzloff (Belle Wonder). Limit: First, F. E. Watkins (Newmarket Beatrice). Open: First, F. E. Watkins (Newmarket Baby); second, F. E. Watkins (Newmarket Beatrice). Winners: First, Newmarket Baby; Res., Newmarket Beatrice.

Boston Terriers—Dogs, puppies: First, Dr. J. C. Zan (The Ameer); second, W. W. Banks (Judge Turpin). Limit: First, Dr. J. C. Zan (Mugsy). Open: First, Dr. J. C. Zan (Mugsy). Winners: First, The Ameer; Res., Mugsy. Bitches, limit, open and winners: First, Dr. J. C. Zan (Floss).

Fox Terriers, smooth—Dogs, puppies: First, C. K. Harley (Wandee Smasher); second, C. Conrad (Victor). Novice: First, W. B. Fechheimer (Sporting Editor); second, C. K. Harley (Wandee Smasher); third, Mrs. W. B. Fechheimer (Tiddle-Dee Winks). Limit: First and second, W. B. Fechheimer (Multnomah Boy and Sporting Editor); third, C. K. Harley (Wandee Smasher); Res., J. G. Morgan (Puget Speedy). Open: First and third, C. K. Harley (Wandee Result and Wandee Smasher); second, W. B. Fechheimer (Multnomah Boy); Res., J. G. Morgan (Puget Speedy). Winners: First, Wandee Result; Res., Multnomah Boy. Bitches, puppies: First, C. K. Harley (Wandee Snow Girl); second, J. G. Morgan (Magpie); third, Mrs. J. H. Ely (Lady Dot). Novice: First, W. G. Fechheimer (Multnomah Astrelle); second, J. G. Morgan (Magpie). Limit: First, C. K. Harley (Wandee Sea Breeze); second and third, W. B. Fechheimer (Norfolk Mistake and Multnomah Astrelle). Open: First, C. K. Harley (Wandee Sea Breeze); second, W. B. Fechheimer (Norfolk Mistake); third, Mrs. J. H. Ely (Lady Dot). Winners: First, Wandee Sea Breeze; Res., Norfolk Mistake. Wire-haired—Dogs, puppies: First, Romilly Kennels (Romilly Blacksmith). Limit: First, C. K. Harley (Wandee Mearns); second, R. Wrightson (Bolton Wood's Ben); third, Romilly Kennels (Aldon Master). Open: First, second and third, repeat. Winners: First, Wandee Mearns; Res., Bolton Wood's Ben. Bitches, limit: First, C. K. Harley (Wandee Manila); third, J. Redelsheimer (Cold Snuff). Open: First, C. K. Harley (Wandee Manila); third, J. Redelsheimer (Cold Snuff). Winners: First, Wandee Manila.

Dachshunds—Puppies: First, Miss J. W. Kerr (Wanda Van Jaegerhaus); second, A. T. W. Kerr (Duchess Van Jaegerhaus). Limit: Repeat. Open: First, Miss J. W. Kerr (Wanda Van Jaegerhaus); second, A. T. Kerr (Treckle III); third, Mrs. A. Kerr (Duchess Van Jaegerhaus). Winners: First, Wanda Van Jaegerhaus; Res., Duchess Van Jaegerhaus.

Irish Terriers—Puppies: First, W. Ollard (Blackthorn Boy); second, withheld; third, Dr. A. C. Panton (Queen of Ireland). Limit: First, W. Olland (Bolton Wood's Despot); second and third, Dr. A. C. Panton (Dunboy Compensation and Dunboy Biddy). Open: First, James Watson (Red Hills Doctor); second, W. Ollard (Bolton Wood's Despot); third, W. R. Whittier (Irish). Winners: First, Red Hills Doctor; Res., Irish.

Scottish Terriers—Puppies: First, D. McGregor (Saanich Shortcake). Winners: Repeat.

Airedale Terriers—Dogs, puppies: First, Miss K. Collins (Buster C.). Novice: First, C. Bruce (Tiger); second, Dr. R. C. Venney (Oom Paul). Limit: First, Miss K. Collins (Buster C.); second, H. Hewett (Little John). Open: First, C. Bruce (Tiger); second, M. K. Collins (Buster C.); third, Dr. E. F. Tucker (Nipper). Winners: First, Tiger; Res., Buster C. Bitches, puppies: First, Dr. E. F. Tucker (Lady Alice); second, R. C. Yenney (Colne Mistress Fairy); third, B. Pelly (Klootch). Limit: First, Dr. R. C. Yenney (Colne Mistress Fairy). Open: First, R. M. Palmer (Lady Marvel); second, Dr. E. F. Tucker (Waterside Duchess). Winners: First, Lady Alice; Res., Lady Marvel.

Pomeranians—Dogs, puppies: First, F. H. Redsecker (King Dodo). Limit: First, B. H. Grant (Pepper); second, F. A. Jones (Snowball); third, F. Kress (Pinkee). Open: First, B. H. Grant (Pepper); second, F. A. Jones (Snowball). Winners: First, Pepper; Res., Snowball. Bitches, puppies: First, Dr. C. Waters (Toodles); second, W. M. Smith (Cutie). Limit: First, D. C. Walters (Toodles); second, Karl Klein (Fannie). Winners: First, Toodles; Res., Fannie.

Japanese Spaniels—Limit: First, U. G. Scott (Reggie); second, J. W. Beakey (Chin-Chin). Open: First, U. G. Scott (Reggie).

Chow Chows—Open, dogs: First, Mrs. W. Gadsby (Chow). Open, bitches: First, Dr. R. J. Pilkington (Chink).

THE SAN FRANCISCO SHOW.

The San Francisco Kennel Club's eighth annual show, which was held in Mechanics' Pavilion April 13 to 16, was successful in every particular and the exhibit as a whole was well up to the best efforts of this organization.

James Mortimer of Hempstead, N. Y., who judged all classes, is a veteran in his line and his decisions met with almost universal approval, there being few instances recorded where his awards were not commended by fanciers who were disinterested and well qualified to pass upon the merits of the dogs.

Notable among the exhibits which attracted universal attention were St. Bernards, stronger in numbers than usual and averaging well in quality; English setters, Irish setters, cockers, collies, bull terriers and wire-haired fox terriers.

The attendance at this show was unusually large and must have netted the San Francisco Kennel Club a handsome sum, as inexpensive medals were offered in place of money prizes and expenses were cut to the lowest notch. Nevertheless, the show was well managed throughout, showing conclusively that the directorate and officials had profited by their long connection with bench show affairs. Especial credit is due Mr. J. L. Cunningham, secretary-treasurer of the club, for his indefatigable and well-directed efforts to bring the show to the highest possible standard. He certainly has proved an unusually capable man for the office he holds.

Fanciers of the field dog were gratified with the sight of an unusually large number of English setters, among which were many typical specimens. Irish setters were also more numerous than in former years, but for some reason or other pointers showed a decided falling off in numbers and quality, and as a whole hardly excelled last year's exhibit, which touched the low water mark of inferiority for the breed in this section where utility breeds are strongly represented.

Bull terriers were well represented, both as to

numbers and quality, and among the dogs benched were quite a few individuals fit to compete in any company, East or West. The Wandee Kennels' exhibit of wire-haired fox terriers was a most remarkable one and attracted universal attention.

Toys, as usual, were weakly represented, but there were some typical specimens among the lot.

LIST OF AWARDS.

Mastiffs—Dogs, open: First, W. E. Meeker (Kaiser); second, Mrs. W. A. Deane (Beau Montez). Bitches, open: First, Dresser, Simpson & Niehaus (Duchess of Posen).

St. Bernards (rough-coated)—Dogs, puppies: First, Allan McDougall (Teddy Roosevelt). Novice: First, Mrs. A. L. Strauss (Marcus Nelson); second, Mrs. Teresa M. Maloney (Alta Chevalier); third, Sydney J. Ackerman (Glenwood Booze); Res., A. F. Chamot (Tzar II); V. H. C., Fately & Matthews (King Lion); C., E. P. Silber (Dewey) and Mrs. S. Barnett (Col. Mosby). Limit: First, Mrs. A. L. Strauss (Marcus Nelson); second, Mrs. Teresa M. Maloney (Alta Chevalier); third, Miss Clara Moffat (Gothard); Res., A. F. Chamot (Tzar II); C., E. P. Silber (Dewey) and F. F. Lueck (Aargan). Open: First, Charles Newman (Lester C.); second, W. Wallace (Le King); third, Mrs. A. L. Strauss (Marcus Nelson); Res., Mrs. Teresa M. Maloney (Alta Chevalier); V. H. C., A. F. Chamot (Tzar II). Winners: First, Lester C.; Res., Le King. Bitches, novice: First, A. L. Hamilton (Golden Fairy); second, M. Coleman (Cuba). Limit: First, Fately & Matthews (Queen Bess B.); second, F. F. Lueck (Cascade). Open: First, Fately & Matthews (Lady Melba). Winners: First, Golden Fairy; Res., Queen Bess B.

Great Danes—Dogs, puppies: First, Mrs. D. O. Druffel (Canute); second, S. Burnett (Jumbo); third, John Rauch (Tom). Novice: First, Miss E. M. Schrock (Beauty). Limit: First, J. L. Cunningham (Ruy Blas); second, Mrs. A. W. Spear (Lord Glanville); third, Mrs. S. Barnett (Nero). Open: First, Mrs. L. S. Adams Jr. (Rupert of Hentzau); second, J. L. Cunningham (Ruy Blas); third, Mrs. A. W. Spear (Lord Glanville); Res., Mrs. S. Barnett (Nero). Winners: First, Rupert of Hentzau; Res., Ruy Blas. Bitches, puppies: First, Mrs. C. G. Saxe (Princess Harlequin); second, Dresser, Simpson & Niehaus (Carla II). Novice: First, Mrs. C. G. Saxe (Princess Harlequin); second, Dresser, Simpson & Niehaus (Posen Princess); third, Mrs. J. F. Fitzgerald (Queen F.); Res., J. L. Cunningham (Cunningham's Carmencita). Limit: First, J. L. Cunningham (Carlotta); second, Mrs. J. F. Fitzgerald (Queen F.). Open: First, O. Bergsten (Maud S.); second, Dresser, Simpson & Niehaus (Flora); third, J. L. Cunningham (Carlotta); Res., Mrs. J. F. Fitzgerald (Queen F.). Winners: First, Princess Harlequin; Res., Maud S.

Greyhounds—Dogs, novice: First, S. A. Cummings (Crockett Boy). Limit and open: First and second, J. H. Rosseter (Rocker and Roman Athlete). Winners: First, Rocker; Res., Crockett Boy. Bitches, limit, open and winners: First, J. H. Rosseter (May Hempstead).

Foxhounds (American)—Dogs, puppies: First, Mrs. J. J. Killalee (Don Carlos). Novice: First, C. H. Shaw (Bob); second, H. B. Ticknor (Tick). Limit, open and winners: First, W. M. Berg (Crowder); second, C. H. Shaw (Bob). Bitches, novice, limit, open and winners: First, W. S. Kittie (Rose); second, C. H. Shaw (Bess).

Pointers—Dogs, puppies: First, Allan McDougall (Tick); second, Dresser, Simpson & Niehaus (Duke of Posen); third, W. L. Purcel (Point). Novice: First and second, W. B. Coutts (Bang Up and Glen Rose); third, John Niedt (Sport); Res., William Higby (Duke); V. H. C., Thomas Klapinski (Duke K.). Limit, under fifty-five pounds: First, E. C. Ford (Boston); second, E. D. Wastie (Brassy Mack); third, P. Lapachet (Marquis); Res., William Highby (Duke); V. H. C., H. B. Gardiner (Flash); H. C., Sydney Hamilton (Lady Ruffle's Rip). Fifty-five pounds and over: First, Dr. D. Shoemaker (Rip Rattler). Open, under fifty-five pounds: First, E. C. Ford (Boston); second, W. B. Coutts (Glen Rose); third, Sydney Hamilton (Lady Ruffle's Rip). Fifty-five pounds and over: First, Dr. D. Shoemaker (Rip Rattler). Winners: First, Boston; Res., Bang Up. Bitches, puppies: First, Dresser, Simpson & Niehaus (Posen Queen). Novice: First and second withheld; third, Dr. Edmond Pitres (Pattie of Kent). Limit: First, F. M. Warnsley (Oregon Jessie). Winners: First, Oregon Jessie; Res., Posen Queen.

English Setters—Dogs, puppies: First, E. W. Moulton (Palo Alto); second, Mrs. Ida L. Moulton (Pope); third, George Dupuy (Major E.); Res., Peurl Wilkerson (Warte Nicht); V. H. C., W. T. Wood (Rod's Bub); C., Thomas Irving (Jack). Novice: First, C. D. Carman (Wad); second, Joe Broder (Starr); third, J. E. Terry (Kilgarif); Res., F. C. Scherstein (Leon); V. H. C., Puerl Wilkerson (Warte Nicht) and W. J. Baughn (Fairland Dude); H. C., R. J. Raetz (Harvey) and H. B. Gardiner (Cato). Limit: First, C. D. Carman (Wad); second, W. J. Baughn (Fairland Dude); third, W. H. Lemmer (Hardy); Res., A. B. Truman (Wig Wag); H. C., Charles Easton (Dewey); C., P. L. Shafter (Star White). Open: First, J. M. Golobeck (Cato Jr.); second, William Feige (Buckwa); third, J. E. Terry (Kilgarif); Res., Louis Abrams (Dolly's Sport); V. H. C., H. B. Gardiner (Cato). Winners: First, Cato Jr.; Res., Buckwa. Bitches, puppies: First, C. L. Griffith (Feathers). Novice: First, H. Eisner (Fanchon); second, Mrs. H. H. Brown (Dot Cummings); third, Mrs. L. A. Broder (Arrow). Limit: First, Mrs. H. H. Brown (Dot Cummings); second, S. Barnett (Theodora Gladstone). Open: First, C. C. Lee (Laura L.); second, J. E. Terry (Lady). Winners: First, Laura L.; Res., Lady.

Irish Setters—Dogs and puppies: First, F. T. Keane (Terry M. Jr.). Novice: First, Joe King (Brian Boru); second, Egbert S. Georges (Steinway Jack); third, J. J. Klapperich (Rodger). Limit: First, F. S. Johnson (Toronto Pat); second, E. S. Georges (Steinway Jack); third, J. J. Klapperich (Rodger). Open: First, A. B. Truman (Mike Swiveller). Winners: First, Brian Boru; Res., Mike Swiveller. Bitches, puppies: First, F. T. Keane (Kathleen). Novice: First, F. T. Keane (Kathleen); second, R. A. Miller (Diana M.). Limit: First, Mrs. Howard Black (Lady Josie II); second, P. J. Higgins (Lady Lucy). Open and winners: First, Mrs. Howard Black (Lady Josie II); second, A. B. Truman (Sapho).

Gordon Setters—Dogs and bitches, puppies: First, E. F. Cuenin (Juno Sing). Limit: First, Mrs. A. A. Roi (Dick). Open: First, Dr. F. P. Clark (Homestead Boy); second, A. Stuart (Doc). Winners: First, Homestead Boy; Res., Dick. Field trial class, dogs: First, J. E. Terry (Kilgarif). Bitches: First, J. E. Terry (Lady).

Irish Water Spaniels—dogs, novice: First, William Bay (Mike B.); second, C. W. Oaks (Teddy). Open: First, William Wattson (Dennis C.); second, W. H. Williams (Robert Emmet); third, William Bay (Mike B.). Winners: First,

Dennis C.; Res., Robert Emmet. Bitches, open and winners: First, James E. Spink (Floradora).

Clumber Spaniels—Dogs, open: First, G. D. Boyd (Beech Grove Dick).

Field Spaniels—Dogs and bitches, novice and limit: First, L. C. Clark (Pompey). Open: J. Stuart (Judge Casey). Winners: First, Pompey; Res., Judge Casey.

Cocker Spaniels—Not over twenty-four pounds, black —Dogs and puppies: First, Percy Weekes (Black Beau); second, Charles Rietzke (Mascot; third, H. J. Moore (Ben). Novice: First, Mrs. C. Hermann (Major Domo); second, Percy Weekes (Black Beau); third, F. L. Greenberg (Bublow); Res., Mrs. A. Eckert (Captain Stub); V. H. C., N. Macfee (King Dodo); H. C., Dr. O. W. Toye (Duke). Limit: First, Mrs. J. H. Brooks (Dandy); second, Mrs. P. C. Meyer (Glenwood Havoc); third, Dr. W. O. Toye (Duke). Open: First, J. H. Jones (Black Silk II); second, Mrs. A. Roncovieri (Delverton Wonder); third, F. L. Greenberg (Bublow); Res., Dr. W. O. Toye (Duke). Winners: First, Black Silk II; Res., Major Domo. Bitches, puppies: First, A. L. Creswell (Plumeria Sally); second, R. E. Hunter (Queenie); third, Miss May Boulon (Little Girl); V. H. C., P. H. Doble (Hazel Barton). Novice: First, D. C. Brown (Wiggles); second, D. P. Cresswell (Bonnie Black Bess); third, Mrs. M. B. Starzman (Mink). Limit: First, J. H. Jones (Miss Frivolity); second, P. H. Doble (Mill Girl); third, D. P. Creswell (Bonnie Black Bess). Open: First, D. P. Creswell (Bonnie Black Bess); second, Mrs. P. C. Meyer (Glenwood Maisie). Winners: First, Wiggles; Res., Miss Frivolity. Solid colors other than black—Dogs, puppies: First, Delverton Kennels (Delverton Promise); second, William Blackwell (Brother Goldie). Novice: First, A. Wolfen (Brownie); second, C. G. Lyons (Omo). Limit: First, C. G. Lyons (Omo). Open: First, Miss A. Farno (Victory A.). Bitches, puppies: First, Miss A. Farno (Bonnie Bess); second, Mrs. R. H. Atkinson (Red Bettie); third, Mrs. J. Leo Park (Lady Goldie). Novice: First, A. Wolfen (California); second, Frank I. Turner (Plumeria Chic); third, R. H. Atkinson (Blondy). Limit: First, J. H. Jones (Little Maid); second, Mrs. Peter Moir (Coquette Bonnie). Open: First, Delverton Kennels (Little Dorritt); second, J. H. Brown (Plumeria Sapho). Particolors—Dogs, puppies: First, Delverton Kennels (Delverton Domino); second, Thomas Smith (Don S.). Novice: First, Miss A. Farno (Teddy Roosevelt); second, Thomas Smith (Don S.). Limit: First, Thomas Smith (Don S.). Bitches, puppies: First, Delverton Kennels (Delverton Dolores). Novice: First, Mrs. W. Rounthwaite (Delverton Deborah); second, Mrs. William Blackwell (Lady Schotz); third, Mrs. J. W. Douglass (Trixie). Limit: First, Delverton Kennels (Delverton Tattoo). Open: First, Delverton Kennels (Paprika); second, Mrs. William Blackwell (Lady Schotz). Other than black—Winners, dogs: First, Brownie; Res., Victory A. Bitches: First, Paprika; Res., Little Dorrit.

Collies—Dogs, puppies: First, M. F. Blanchard (Prince); second, Dr. Quinan (Old Hall Bob); third, W. P. Burnham (Sunset Marvel); Res., Virgil F. Shaw (Maplemont Shower of Gold); V. H. C., Mrs. J. D. Mercer (Mountain Duke); H. C., Fred S. Hobro (Ormskirk Bill). Novice: First, Virgil F. Shaw (Maplemont Shower of Gold); second, Mrs. D. C. Mercer (Mountain Duke); third, Mrs. L. W. Seely (Old Hall Sandy); Res., W. P. Burnham (Sunset Galopin); V. H. C., Mrs. Bertha Scholtz (Kernel) and Captain N. H. Wulff, Jr. (Niels); H. C., Dr. O. N. Orlow (Borda Lad). Limit: First, W. P. Burnham (Yarror). Open: First, Miss Della Beach (Hanover Monarch); second, Mrs. L. W. Seely (Old Hall Sandy). Winners: First, Hanover Monarch; Res., Prince. Bitches, puppies: First and second, withheld; third, Dresser, Simpson & Niehaus (Mignonette). Novice: First, E. J. Thomas (Babbie); second, Miss Daisie E. Meek (Mollie of Nestledown). Limit: First, S. Barnett (Wag); second, Miss Daisie E. Meek (Mollies of Nestledown). Open: First, Mrs. H. McCracken (Presidio Lassie); second, W. P. Burnham (Brandane Dollie). Winners: First, Presidio Lassie; Res., Wag.

Poodles—Dogs and bitches, open: First, Marguerite C. Hoag (Muggins).

Bulldogs—Dogs, puppies: First, Mrs. H. H. Brown (Yeovil Thornfield). Novice: First, Captain E. V. E. Neill (The Battler); second, Mrs. H. H. Brown (Yeovil Thornfield). Limit: First, Mrs. Charles K. Harley (Ivel Damon); second, L. S. Greenebaum (Harry Lacy); third, Captain E. V. E. Neill (The Battler); V. H. C., Dresser, Simpson & Niehaus (Bully). Open: First, Mrs. Charles K. Harley (Ivel Damon); second, Captain E. V. E. Neill (The Battler). Winners: First, Ivel Damon; Res., Harry Lacy. Bitches, novice: First, Delger Trowbridge (Gresford Ranee). Open: First, Marks Weiner (Canford Rush). Winners: First, Canford Rush; Res., Gresford Ranee.

Bull Terriers—Dogs, puppies: First, Ed Attridge (Edgecote Peer); second, John D. Spreckels, Jr. (Titus); third, John I. Sparrow (Silkwood Dan); Res., J. W. Morton (Edgewood Baron); V. H. C., M. H. Francis (Silkwood Duke). Novice: First, Ed Attridge (Edgecote Peer); second, John D. Spreckels Jr. (Titus); third, John I. Sparrow (Silkwood Dan); Res., Mrs. Charles F. Jackson (Woodcote Imp); V. H. C., William Kaler (Woodcote Bummer); H. C., John J. Deane (Spot). Limit, thirty-five pounds or under: First, John D. Spreckels, Jr. (Titus). Over thirty-five pounds: First, Mrs. Arthur W. Spear (Woodlawn Wonder); second, Mrs. Charles F. Jackson (Woodcote Imp); third, Mrs. W. J. Tiernan (Dick Curtin); V. H. C., John I. Sparrow (Silkwood Teddy). Open, thirty-five pounds or under: First, Athole McBean (Banjo); V. H. C., John I. Sparrow (Croyden Zar). Over thirty-five pounds: First, Mrs. Arthur W. Spear (Woodlawn Wonder); second, Mrs. Charles F. Jackson (Woodcote Imp); third, W. C. Bogen (Englewood). Winners: First, Edgecote Peer; Res., Banjo. Bitches, puppies: First, F. W. Kelly (Bess); second, W. G. Bogen (Silkwood Venus); third, Roberta T. Duryea (Silkwood Bettie); V. H. C., Mrs. Bessie Kaler (Baby Queen). Novice: First, Frank E. Watkins (Newmarket Beatrice); second, W. C. Bogen (Silkwood Venus); third, Phil J. Fay (Woodcote Empress); V. H. C., Roberta T. Duryea (Silkwood Bettie) and E. S. Simpson (Woodcote Ditto). Limit, thirty pounds and under: First, J. C. Bone (Hawthorn Snowflake); second, Mrs. C. F. Morrel (Silkwood Patsye); third, J. L. Eastland (Naughty Nan). Over thirty pounds: First, John I. Sparrow (Edgewood Jean II); second, Philip J. Fay (Woodcote Queen); third, Andrew P. Welch (Haltome Pleasure); V. H. C., E. S. Simpson (Woodcote Ditto). Open, thirty pounds or under: First, J. C. Bone (Hawthorn Snowflake); second, J. I. Eastland (Naughty Nan). Over thirty pounds: First, John I. Sparrow (Edgewood Jean II); second, Andrew P. Welch (Haltome Pleasure); third, E. S. Simpson (Woodcote Ditto). Winners: First, Edgewood Jean II; Res., Hawthorn Snowflake.

French Bulldogs—Dogs and bitches, open:

First, L. Guglielmoni (Boulette); second, Mrs. Cash Sloan (Noundu).

Boston Terriers—Dogs, puppies: First and third, Mrs. G. L. King (Oaksides My Lady's Boy and Oaksides His Royal Highness); second, W. H. Deming (Snowdrop II); V. H. C., Mrs. H. H. Carlton (Oaksides Hub Bub). Novice: First, Richard J. Jose (Boston Jack); second, Mrs. H. H. Brown (Cracker Jack); third, W. H. Deming (Lord Rushie). Limit: First, Richard J. Jose (Boston Jack). Open: First, Mrs. H. H. Carlton (Tremont). Winners: First, Boston Jack; Res., Tremont. Bitches, puppies: First, Mrs. H. H. Carlton (Oaksides Bonnibel). Novice: First, Mrs. M. C. Greenberg (Glenwood Enchantress); second, W. H. Deming (Dixsey D.); third, M. Ella Harris (Little Miss Muggins). Limit: First, Mrs. W. H. Deming (Endcliffe Vernette); second, W. H. Deming (Dixsey D.); third, M. Ella Harris (Little Miss Muggins). Open: First, Mrs. W. H. Deming (Endcliffe Vernette); second, Mrs. H. H. Carlton (Oaksides Princess of Avondale). Winners: First, Glenwood Enchantress: second, Endcliffe Vernette.

Dachshunds—Dogs, puppies: First, Mrs. Philip M. Wand (Dougie E.); second, Mrs. G. W. O'Donnell (Count); third, Mrs. F. A. Brookbank (Dock). Novice: First, Mrs. Philip M. Wand (Dougie E.); second, Mrs. F. A. Brookbank (Dock); third, Carl von Baumgarten (Printz). Limit: First, Mrs. F. A. Brookbank (Dock). Open: First, Mrs. G. W. O'Donnell (Count); second, Mrs. F. A. Brookbank (Dock). Winners: First, Dougie E.; Res., Count. Bitches, novice: First, Philip C. Meyer (Glenwood Fraulein). Open: First and second, Marie Evans (Mejula and Tilly). Winners: First, Mejula; Res., Glenwood Fraulein.

Airedale Terriers—Dogs and bitches, limit: First, Augusta L. Reiners (Wyndhill Pappoose). Open: First, John A. Reiners (Red Crack).

Fox Terriers—Smooth-coated—Dogs, puppies: First, C. K. Harley (Wandee Smasher); second, Lewis Prenot (Edgecliff); third, W. W. Stettheimer (Tallac Sagebrush); V. H. C., Dominick Shannon (Silver Trumpet). Novice: First, C. K. Harley (Wandee Smasher); second, W. W. Stettheimer (Tallac Sagebrush); third, Dominick Shannon (Silver Trumpet). Limit: First, Irving C. Ackerman (Sabine Brightlight); second, C. K. Harley (Wandee Smasher). Open: First and third, C. K. Harley (Wandee Result and Wandee Smasher); second, Irving C. Ackerman (Sabine Brightlight). Winners: First, Wandee Result; Res., Sabine Brightlight. Bitches, puppies: First, C. K. Harley (Wandee Snow Girl). Novice: First and third, C. K. Harley (Wandee Treasure and Wandee Snow Girl); second, J. B. Martin (Golden Soubrette). Limit: First, C. K. Harley (Wandee Sea Breeze). Open: First, C. K. Harley (Wandee Violet). Winners: First, Wandee Violet; Res., Wandee Sea Breeze. Wire-haired—Dogs, puppies: First, Irving C. Ackerman (Humberstone Bristles). Novice: First, C. K. Harley (Wandee Buck Up). Limit: First, C. K. Harley (Wandee Mearns). Winners: First, Wandee Mearns; Res., Wandee Buck Up. Bitches, puppies: First, C. K. Harley (Wandee Worry). Novice: First, C. K. Harley (Wandee Cowslip). Open: First, C. K. Harley (Wandee Manila). Winners: First, Wandee Manila; Res., Wandee Cowslip.

Irish Terriers—Dogs, limit: First, John Douglass (His Lordship); second, Thomas Howard (Shaun Rhu); third, F. J. Walker (Iowilde Dougan). Open: First, James Watson (Red Hill's Doctor); second, John Douglass (His Lordship). Winners: First, Red Hill's Doctor; Res., His Lordship. Bitches, limit: First, Miss Ina C. Martin (Shan Van Vocht); second, Dresser, Simpson & Niehaus (Lady Powers). Open: First, Mrs. F. J. Walker (Royal Noreen); second, Miss Ina C. Martin (Shan Van Vocht). Winners: First, Royal Noreen; Res., Shan Van Vocht.

Pugs—Dogs, novice, open and winners: First, Mrs. G. Myers (Face).

Pomeranians—Dogs, open: First, Mrs. Lewis Bernstein (Beauty).

Yorkshire Terriers—Dogs and bitches, novice: First and second withheld; third, Miss Doris Wilshire (Punch).

Maltese Terriers—Dogs and bitches, open: First and second withheld; third, Miss F. Marx (Teddy R.).

English Toy Spaniels—Dogs and bitches, open: First, Mrs. A. Roi (Pansy); second, Irving C. Ackerman (Humberstone Trilby); third, Ed Attridge (Rufus).

Japanese Spaniels—Dogs, limit: First, Thomas H. Stevenson (Blutcher); second, R. Robinson (Gip). Open: First, Thomas H. Stevenson (Prince). Winners: First, Prince; Res., Blutcher. Bitches, limit: First, Thomas H. Stevenson (Beauty). Open: First, Thomas H. Stevenson (Queen). Winners: First, Beauty; Res., Queen.

Mexican Hairless—Dogs, open: First and second, Mrs. Ida L. Moulton (Stylish Jack and Cupid). Bitches, open: First and second, Mrs. Ida L. Moulton (Bing Bing and Jane).

Italian Greyhounds—Dogs and bitches, puppies: First and second, Mrs. William Hill (Duke II and Dude).

Chows—Dogs and bitches, open: First, Mrs. D. De Barrows (Hong); second, D. De Barrows (Kong).

Miscellaneous—Dogs and bitches, puppies: First and second, Mrs. L. H. Wagner (Puggie and Toodles). Open: First, Mrs. C. F. Hewson (Jappo); second, Mrs. Ida L. Moulton (Bummer); third, Res. and V. H. C., Mrs. L. H. Wagner (Bunny, Beauty and Toy).

THE LOS ANGELES SHOW.

One of the most interesting dog shows that has yet been held on the Coast was that of the Southwestern Kennel Club, held at Los Angeles on May 4 to 7. Our columns are so full with kennel matters this month, however, that we are compelled to defer the publication of the full report of this show until our July issue. We give, however, in this number, a picture of the splendid banquet tendered the club members and visiting exhibitors by Mr. Arthur Letts on the evening of the last day of the show.

The new club is composed of the wealthy citizens of that rushing city, and the result was that the hall was packed every afternoon and night to the point of suffocation. The special prizes, consisting of cups and trophies, numbered thirty-one, ranging in value from $20 to $150 each, besides numerous valuable merchandise prizes, forming fully twice as valuable a collection as the best ever before offered on the Coast.

Banquet tendered after Los Angeles Show, by Mr. Arthur Letts.

THE A. K. C. SUNSET

The recent organization of the Western Kennel League, which occurred at Seattle April 16, presages a death-blow to the American Kennel Club's interests on this Coast.

There was a time, and that not so very long ago, when the A. K. C., confident of its ability to dominate American fanciers' clubs, applied its tyrannical rulings to all sections of this vast country alike. Separated from the club's headquarters by thousands of miles, it still was necessary for Coast organizations to consult with the powers in New York before taking any steps toward holding a bench show, under penalty of heavy fines for usurpation of authority. Questions which could best be solved by those conversant with prevailing conditions were passed upon by the versatile secretary of the A. K. C., who, while eminently gifted in diplomacy and a certain amount of ability (especially in regard to maintaining a death hold on what must prove to him a decidedly lucrative position), was not familiar with the needs of the Coast fancy. Tribute was levied wherever and whenever possible; for, possessing an undisputed monopoly, the A. K. C. applied unfeeling leverage and squeezed the reluctant dollars from our kennel clubs in much the same manner that the esteemed railroad corporations enforce their rule to "charge the shipper all the traffic will bear."

Thus for years the sway of the A. K. C. was uninterrupted, and while that organization was in no way interested in the good and welfare of the fancy on this Coast, it was pleased to accept the tribute laid at its feet by organizations which derived not one iota of benefit from their connection with it. This continued until, through an unfortunate combination of circumstances (for the A. K. C.), the organization of the Pacific Kennel League was brought about. The majority of small kennel clubs at once joined the new league and a series of successful shows were held. The league, however, was hampered in that it was unable to secure registration for its adherents except in the A. K. C. Stud Book, which fact in itself prevented the bestowal of universal patronage to the P. K. League by Coast fanciers.

Meanwhile the A. K. C., like a hungry coyote driven from its victims by superior force, waited patiently for signs of a decline in power which it believed must surely come, and the prey, realizing that the P. K. League was becoming indifferent to its interests, looked appealingly to the coyote, which grinned and showed its teeth as it contemplated its victims, but spoke no word of encouragement and gave no promise of a rendition of justice.

Goaded to action by the course pursued by the A. K. C., various Coast clubs, realizing that they could no longer secure recognition from that organization in the government of affairs, which of necessity must be regulated by representatives familiar with the needs of the Coast and in sympathy with its fanciers, sent delegates to Seattle to bring about the thorough reorganization of the Pacific Kennel League, or if necessary, to merge it into a new organization free from the objectionable features which hampered the old league. An appeal was made to the publishers of the Field Dog Stud Book for the extension of registration privileges to all breeds, and this being granted, every bar to the fu-
ture growth of kennel interests on this Coast
ture growth of kennel interests on this Coast was existence under the most auspicious conditions. Registration, which heretofore has cost fanciers $1.00 for each individual whose breeding was placed on record in the slipshod manner which has always characterized the A. K. C.'s methods of registration, will now be reduced to 50 cents, and the restrictions which govern the recording of a dog's pedigree in the F. D. S. Book will render impossible the perpetration of frauds. It has been conclusively proven that the registration of fraudulent pedigrees in the A. K. C. Stud Books was a decidedly easy matter, and doubtless if the breeding of all dogs so registered could be probed it would be found that in numberless instances their breeding was improperly given.

In view of the A. K. C.'s failure to remedy the defects in its system of registration, it would appear that its sole aim was to secure the fees at the slightest expenditure of labor and money, the fancier being led to believe that he was securing value received for his expenditures. Of what value is a system of registration which permits an unscrupulous fancier to register a dog under a fictitious pedigree without detection except through the veriest chance? The A. K. C. has now a balance in its treasury which aggregates five figures, and a large proportion of this surplus has accumulated through the medium of registration fees. If the Field Dog Stud Book, with its intricate and precise methods of registration, which entails a great deal of research, can be placed on a paying basis at 50 cents per entry, then certainly the A. K. C. is not justified in charging fanciers $1.00 for a registration which entails far less expense than the former.

All in all, the Western Kennel League is to be congratulated on the move it has made in behalf of the interests of Coast fanciers and in its overthrow of tyrannical A. K. C. rule. It now remains for the San Francisco Kennel Club to yield gracefully to the new order of things and join forces with the other clubs now affiliated with the Western Kennel League. By so doing, it will receive reciprocative support from sister organizations which will tend to swell its entries to phenomenal proportions and render possible the holding of bench shows but little inferior to those of New York, Boston and Chicago. Home rule for Coast shows is a necessity and the Western Kennel League, nurtured as it is by necessity, has come to stay. In thus throwing off the galling yoke our fanciers have but emulated the example of those patriots who in 1776 threw off the chains which bound them and proclaimed themselves free men, entitled to govern their own affairs without the formality of paying tribute for that privilege.

At the convention of delegates held April 16, representatives from the following kennel clubs were present: Seattle, Los Angeles, Portland, Spokane, Vancouver, Victoria, San Jose, Sacramento, Salem, California Collie Club, and Pacific Collie and Old English Sheep Dog Club. Since then applications for membership have been received from the Western Fanciers' Association of Chicago.

The officers of the newly organized league are: President, Julius Redelsheimer, Seattle; vice-presidents, T. P. McConnell of Victoria, Tulk of Vancouver, Letts of Los Angeles, Goldman of Portland and C. B. Yandell of Seattle. Norman J. Stewart of San Jose, Cal., is secretary-treasurer of the league.

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ADLETS

Advertisements of subscribers of For Sale, Wants, Exchanges, etc., will be inserted under this head at 15 cents per line for first issue, and 10 cents per line for each issue thereafter. Eight words or fraction thereof measured as a line.

Cash must be sent with order to insure insertion.

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FOR SALE—Several trained, untrained, and partly trained setters and pointers Dogs and bitches. High class and finely bred. CALIFORNIA KENNELS, Del Rey, Cal.

* * *

FOR SALE—The winning young St. Bernard Ch. "His Highness," whelped August 10, 1902; registered A. K. C. S. B. 69,399; winner of twenty-four firsts, ten specials and championship. Price, $100. Reason for selling, owner going to the Orient. W. F. Hall, Glencoe, Richmond Ave., Victoria, B. C.

* * *

FOR SALE—Eastman-Walker 5x7 view camera, reversible back, rising front, double swing; Gray's No. 4 Periscope lens; three double plateholders; tripod and head; Low Kazoo shutter, No. 1; canvas carrying case; cost $61.00; all but case in excellent condition. EIGHTEEN DOLLARS cash. Arthur Inkersley, 508 Montgomery street, San Francisco.

* * *

FOR SALE—A few choice Angora Kittens, sired by "Cherub," winner of Western Field Challenge Cup, 1904. A. J. OLIVER, 1225 Willard Street. Phone Page 9781.

POINTER PUPPIES, by the celebrated Ch. Duke of York—Seekonk Flirt. Just right age for next year's Derby. None better. $20 and $25. WM. J. MORRIS 1033 W Thirtieth Street, Los Angeles.

* * *

FOR SALE—Finest Columbia Graphophone and one hundred selected records. New and perfect. Will take just half price for same. Address "Phone," WESTERN FIELD Office.

* * *

FOR SALE—Fine Eastman Folding Kodak, 5x7, complete and in fine condition. Developing and printing outfit, chemicals, etc., cheap. Refer to Editor WESTERN FIELD.

* * *

TO SPORTSWOMEN.—There are many ladies who would gladly improve an opportunity to kill bear, cougar and deer if the same could be easily and *safely* done. I am in a position to guarantee any sportswoman a shot at such large game, under conditions that will assure success and absolute safety, for a very moderate compensation. If interested, apply to the Editor of WESTERN FIELD, to whom I am permitted to refer. "HUNTER."

* * *

WANTED—Obsidian Spears and Knives, 3 to 10 inches; elegant tiny arrowheads of Oregon, Washington and California and all Western States found in the soil; Indian Baskets, Bead Work, Alaska Etchings on old ivory ornaments, fine Crystallized Minerals, Curios of the great West and Northwest, including Alaska. Write, describing what you have, with prices, to me, a dealer. L. W. STILWELL, Deadwood, S. D., Wholesaler of Bead Work and Indian Curios. To curio dealers, catalogue with prices.

* * *

FOR SALE—A fine Bullard single-shot target rifle, Swiss butt, Vernier sights, etc., extra fancy stock, embossed action. Recently recut by Geo. Schoyen from .35 to .38 caliber. Tools, etc., complete. Cheap for cash or might trade. Want a good duck boat, decoys, etc. "Gunner," care WESTERN FIELD Office.

* * *

WANTED—To correspond with any parties who contemplate a hunting, fishing or camping trip in the mountains or a camping trip through the Yellowstone National Park. My facilities for outfitting parties are of the best and my long residence, experience and thorough knowledge of the country makes the chances of a pleasant and successful trip assured. References furnished on request. S. N. Leek, Jackson, Wyo.

* * *

WANTED—Combination billiard and pool table. Will trade fine rifles, shotgun, camera, etc., for same, or pay cash if cheap and in good condition. Address "Table," WESTERN FIELD Office.

* * *

FOR SALE—Owing to overcrowded kennels, I offer for sale my imported English setter dog Tirphil's James; registered 285 E., English Stud Book. He is a beautiful blue belton dog with lovely head and expression, good body, deep chest, splendid legs and feet, fine, silky coat and nice feathering. He was bred by B. A. Jones, Esq., of New Tredegan, England, August 12, 1902, and is by the great English winner Ammonite (Ch. Mailroyd James-Electra) by Tirphil's Bessie (Sir Bentinck by Countess of Richmond). His winnings, only times shown, are first Cardiff, first Vancouver, class 20 entries, and second Victoria. Price, for quick sale, $100. Wires preference. T. P. McConnell, Victoria, B. C.

* * *

FOR SALE—Llewellin setter pups. Sire, Petrel's Count (Ct. Gladstone IV—Rod's Petrel); dam, Gath's Moxy (Sport's Gath—King's Moxy). Handsomely marked black, white and tan. Price, $20 and $25. Mrs. Thos. Murphy, Hollister, Cal.

PURITY AND MATURITY

Unite in making the superior quality of

Hunter Whiskey

Superb Flavor, Mellow and Rich

Sold at all first-class cafes and by jobbers,
WM. LANAHAN & SON, Baltimore, Md.

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Robin Hood Smokeless Powder

LOADED IN

ROBIN HOOD SHORT BRASS SHELLS		E T LONG BRASS SHELLS

WILL SHOOT FURTHER / HIT HARDER AND KICK LESS / COST LESS
THAN ANY SHELL ON THE MARKET

COAST AGENTS
THE BRUNETTE CO.
461 Mission St., San Francisco, Cal.

MANUFACTURED BY
THE ROBIN HOOD POWDER CO.
SWANTON, VT.

TRADE TOPICS

THE REMINGTON TARGET RIFLE.

This Remington rifle
You bet is no trifle,
It is surely the modern sure shot.
It is all that they claim it,
It shoots where you aim it,
It's the rifle that "touches the spot."

Just the thing for your outing,
Of this there's no doubting,
For you can "wing time as it flies."
It's for young folks, or older,
It shoots from the shoulder,
And it opens all eyes with "bull's-eyes."

The Remington's latest,
In fact it's the greatest,
And the very crack shot of the lot,
It's a pleasure past measure,
A joy in your leisure,
To all it's a treasure, that's what!

The Remington rifle
Is not a mere trifle,
A winner, all sportsmen declare,
It's a gun of great beauty
That's up to its duty,
And like Eli, it's sure to "get there."

* * *

A VALUABLE CATALOGUE.

The new catalogue of the J. Stevens Arms & Tool Co., Chicopee Falls, Mass., has just come to hand, and after a careful perusal of it we earnestly advise our readers to send for a copy at their earliest convenience, as it is really too good to be without.

This catalogue embodies all recent notable additions to their extensive line of firearms and accessories in single and double barrel hammer and hammerless shotgun styles; also describes and illustrates their latest rifle creation, the Stevens "Little Krag," No. 65.

The five-color cover design is from the brush of the famous sportsman-artist, A. B. Frost of New York City. This spirited hunting scene, true to nature, high art, and a tribute to the Stevens people's enterprise in securing the services of this well-known artist, as well as a fine sample of the work Mr. Frost is capable of, will be viewed with great pleasure by every sportsman, and is a fair forepromise of the excellence of the reading matter and illustrations in the body of the book.

Trap shooters especially will be greatly interested in the description of the new single barreled Stevens shotgun, built especially for trap shooting, with nitro-powder loads. It is a magnificent weapon, and one which we predict will be "heard from" very shortly.

We have just learned that the indoor pistol championship of the U. S. Revolver Association was won by Dr. E. H. Kessler of St. Louis, Mo. The latter party scoring 450 points out of 500 at 20 yards, using a Stevens Lord model pistol, .22 long rifle cartridges.

SHREVE & CO.
STATIONERY

Club and Society Stationery.
Book-Plate and Heraldic Engraving.
Exclusive styles in Monogram and Writing Papers.

POST & MARKET STS.
SAN FRANCISCO

This superlative achievement of Dr. Kessler's is the latest victory in an unbroken chain of notable triumphs scored by Stevens target pistols.

H. M. Pope also recently tied D. W. King Jr.'s world record of 917 for 100 shots off-hand at 200 yards. The score was shot at 200 yards on the standard American target, on the Lake Lookout Range, Springfield, Mass., Mr. Pope using his Stevens-Pope .33 caliber rifle, mounted with a Stevens-Smith telescope. Mr. Pope's performance is regarded by marksmen as most remarkable, and one that called for not only great skill and the finest judgment, but courage and endurance as well. The conditions under which he shot grew more adverse as he neared the end of his long string, until the rain, the wind and the gathering dusk made it very difficult to shoot accurately; and yet the last five shots of his 100 were placed in the center of the target, where they scored 10, the highest possible score to make.

* * *

A NEW SAVAGE.

The Savage Arms Co., Utica, N. Y., are offering a new .22 caliber take-down rifle called the "Model '04 Savage Junior," which we predict will meet with a very gratifying reception. It weighs three pounds, and is offered at a really nominal price considering its great excellence. While of the new popular "bolt" type it is different from any rifle we ever saw. Its outward appearance may seem similar to other rifles of this type, but that is not the point. It is the quality and the smooth and easy manner in which it works, that counts. Besides being a safe and most accurate shooter, it is beautifully finished and sold under an honest guarantee.

To load this rifle one simply drops a cartridge into the receiver and closes the knob. This knob is so shaped as to lie near the stock and out of the way.

The closing knob automatically cocks the arm and after the cartridge has been fired the opening movement again automatically ejects the empty shells. It is simplicity itself.

The stock is of American walnut (not stained maple or inferior woods) beautifully finished.

The barrel is nicely tapered, constructed and tested with the same care that has made Savage rifles a choice among discriminating sportsmen.

* * *

SOME NEW MARLIN DEPARTURES.

Interesting announcement comes from The Marlin Fire Arms Co., New Haven, Conn., concerning a new line of goods the company is marketing this season, which will attract wide attention among a large class of sportsmen and lovers of the rifle.

The company is now arranging a line of their famous repeating rifles, Model 1893, to be known among the trade as Grade "B." These rifles will be in every respect the same as the regular Model 1893 with the exception that the barrels will be made of the highest obtainable grade of soft gun barrel steel instead of their "Special Smokeless Steel." The intention is to meet the large demand for a high-class, carefully made arm on the part of many shooters who are not sufficiently interested in the smokeless steel barrels to pay for the extra cost. The new line is, of course, not intended for high power smokeless ammunition, and its use in this grade is not advised by the makers; only black powder ammunition and equivalent loads such as low power smokeless should be used. The .32-40 and .38-55 sizes only will be made in this grade.

The line will consist of the carbine with 15-inch round barrel weighing 6¼ pounds and carrying five shots, or with 20-inch round barrel weighing 6¾ pounds and carrying seven shots. With the regular round barrels in 26-inch to 32-inch lengths, the rifle may be had weighing 7 to 7¾ pounds. Octagon barrels are furnished 26 inches to 32 inches long, the rifles weighing 7½ pounds to 8½ pounds. These rifles can be furnished in short, half or full magazine. They accommodate a wide range of cartridges and all the popular ammunition with the exception noted above regarding high power smokeless powder.

A Good Guaranteed Bicycle

—$25.00—

Made by the POPE MFG. CO., the largest manufacturers of bicycles in the world.

Our 1904 Sporting Goods Catalogue Illustrates it.

KIMBALL-UPSON CO.

THE SPORTING GOODS HOUSE,

609-611 K Street, Sacramento, Cal.

RADKE & CO.

118 SUTTER ST.

BET. KEARNY AND MONTGOMERY STREETS

SAN FRANCISCO.

JEWELERS

AND

SILVERSMITHS

The Place to buy Wedding Silver.
Fine Designs in 14k Jewelry.
Precious Stones.

Field Trophies and Shooting Medals

CLUB EMBLEMS

DESIGNS FURNISHED GRATIS

Commence the Season's Fishing Right
AND USE KEWELLS'
STEWART BASS AND SALMON SPOONS
MAKERS OF
KEWELL'S LA FORGE SPINNERS, AND KEWELL'S AMERICAN TROUT FLIES
WRITE FOR CIRCULARS
CHAS H. KEWELL CO.
1582 MARKET ST., SAN FRANCISCO, CAL.

The old standard claims for the Marlin products are safety, accuracy and simplicity. The solid top and side ejection not only protects the user by interposing a solid wall of metal between his head and the cartridge and lessens the liability of powder and gases being blown back into the face, but it also prevents rain, snow, twigs, etc., from falling into and fouling the action. The famous Ballard barrels, regarded to-day as the standards of accuracy, are still copied exactly in the Marlin; and the manufacturers claim that "Marlins" have the fewest parts of any repeating rifle now on the market. Their 1904 catalogue is very comprehensive and interesting.

It is interesting in this connection to note that the Marlin Fire Arms Co. has acquired the plant of the American Cartridge and Ammunition Co. of Hartford, Conn., and expects to be soon in a position to begin the manufacture of cartridges of all kinds.

The American Cartridge and Ammunition Co. was organized in Hartford on August 15, 1901. It has a large plant on Pearl street in that city and was capitalized at $100,000. The amount of machinery, which is of a specially patented design, is quite large. This has all been included in the purchase by the Marlin Company and will be removed to the Marlin's present large plant at New Haven.

The Marlin Company has been making rifles and have not been in the cartridge manufacturing business. It is understood, however, the present purchase is for the purpose of going extensively into that line.

* * *

A PRODUCT WE ARE PROUD OF.

Sportsmen of three generations have known, used and admired the good old Parker guns, and to-day there are thousands of us who will cheerfully agree that what was good enough for our grandfathers is, in its vastly improved present state, plenty good enough for us.

Hundreds of records have been made with Parker guns at the traps, and for field work no gun has ever exceeded its popularity. Made of the best material that money can buy, brains and care can manufacture, and courtesy and honesty can sell, the Parker product is one that America is proud of. It is regarded as a standard all the world over, and the common saying, "As good as a Parker," fully evidences its worth.

* * *

At Lexington, Ky., Mr. Robert R. Skinner broke 49 out of his first 50, and then broke 71 out of 75. Mr. Skinner is loud in his praises of the Parker gun, and is a shooter of considerable ability.

* * *

ONE YEAR OF MOTOCYCLING

is the title of a very interesting little booklet by G. B. Gibson, D. D. S., now ready for gratuitous issue by the Hendee Mfg. Co., of Springfield, Mass., whose advertisement appears elsewhere in these pages. This little booklet is of vital interest to would-be purchasers of motor-cycles, as well as to those who are already riders, as it contains tables of vital interest. The value of this article is from the fact that it places before its readers the exact experience of a man who is not a practical engineer, and he states exactly what his troubles have been and how he overcame them. The article therefore is doubly valuable.

We regret exceedingly that lack of space forbids our reprinting the whole booklet, as it is really a very valuable contribution to the public's general knowledge and is of especial interest to all—and that means everybody—who are interested in rapid and comfortable transit. We earnestly recommend our readers to write the Hendee Co. for a copy, assuring them that their small trouble will be repaid an hundred fold.

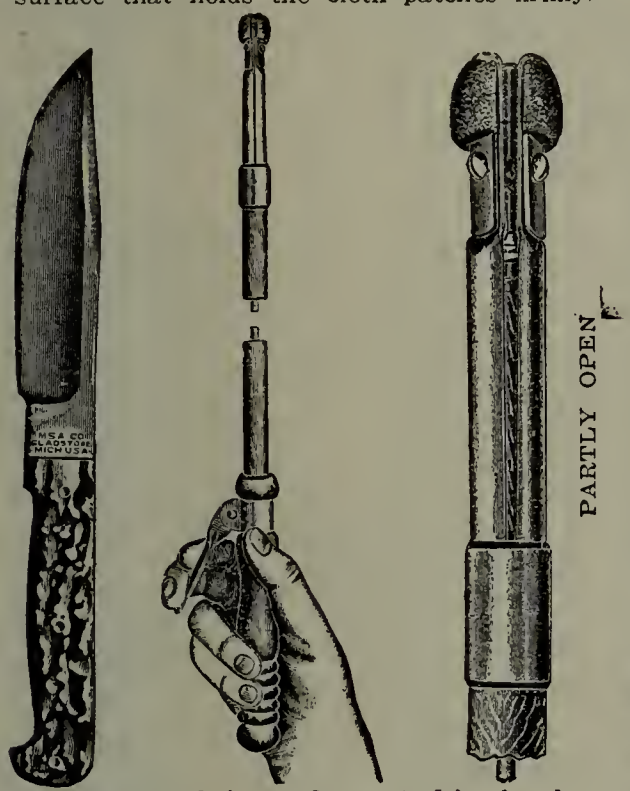
KODAK AGENCY
Dealer in Photo Supplies
Agent for WILLIS & CLEMENTS, Platinum Paper
Special attention given to DEVELOPING, PRINTING AND BROMIDE ENLARGING
H. B. Hosmer
Hobart B'ld. 536 Market St. S. F.

SOME NEW MARBLE TRICKS.

Among other notable new novelties described in the latest catalogues of the Marble Safety Axe Co., Gladstone, Mich., are the knife and cleaning rod illustrated herewith.

These knives are straight bevel ground, have bone chopper at back of point, are one-quarter inch thick at back of blade and are of same thickness in the tang. Two oblong recesses are forged in both sides of tang, thus making the knife balance perfectly. Side plates are of selected slabs of German stag horn.

The cleaner rod pads are made by stringing thirty gauze washers on a brass holder, these being compressed in forming die to proper shape to conform to inside circle of barrel, and making a surface that holds the cloth patches firmly.



The adjustment being under control in chamber, barrel or choke, at any pressure desired, by movement of the lever. One thickness of cloth, about three inches square, makes a perfect swab. The pads are held in place by a turn-over hook at end of cleaner fingers and by a screw at rear; are easily removed if desired, but owing to contruction, described above, will clean one gun every day for several years. While the firm manner in which the pads holds cloth to gun barrel removes all but most obstinate deposits of lead and rust, a moment's use uncovered will do this completely. A patch oiled with pure vaseline or gun grease makes a perfect job.

Bushnell FOTOGRAFER

1510 MARKET ST.
SAN FRANCISCO

BRANCH STORES
OAKLAND
SAN JOSE
SACRAMENTO
SAN FRANCISCO

We make a specialty of
PHOTOGRAPHING LARGE GAME, ANIMALS AND CLUB EVENTS

DRY MATCHES

Are a prime necessity to sportsmen, yachtmen and canoeists.

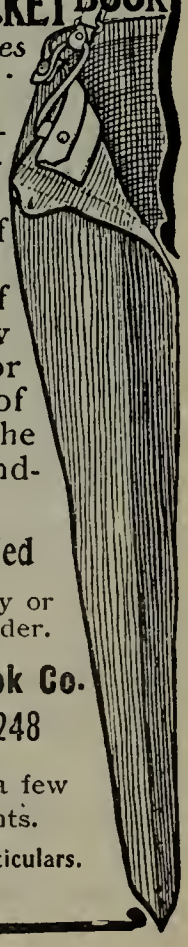
MARBLE'S WATER PROOF MATCH BOX

is substantially made from brass, heavily nickeled, and holds enough matches to keep a man in smokes and fires for a week. We guarantee it to be absolutely waterproof.
Our new catalog shows 18 new specialties. Send for it.

MARBLE SAFETY AXE CO.
DEPT. H GLADSTONE, MICH.

THE ELDRED SAFETY POCKETBOOK

"You have to lose your clothes to lose your money"....



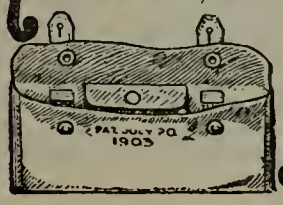
Just the thing for tourists, traveling men, collectors, railroad men, clerks and all who carry sums of money.

It is patented, made of soft pliable leather, easily attached, and serves for protection against loss of money in any way. The small inner pocket is intended for gold and jewels.

Price 50c and $1.00 mailed

Guaranteed to be satisfactory or money refunded. Write for folder.

The Eldred Safety Pocketbook Co.
Milwaukee, Wis. P. O. Box 1248



We want a few good agents.
Write for particulars.

WASHBURNE'S Pat. Imp. FASTENERS

The Fastener with a BULL-DOG GRIP

Men find comfort and utility in their use. Applied to

Key Chain and Ring, 25c.
Cuff Holders, . 20c.
Scarf Holders, . 10c.
Drawers Supporters, 20c

Sent Postpaid.

Little, but Never Let Go.

Catalogue Free.

Sold Everywhere.

American Ring Company,
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Waterbury, Conn.

Immediate Delivery Counts

That is what we can give on

INDIAN MOTOCYCLES

Does reputation stand for anything?
Is the INDIAN what we claim for it?

ASK INDIAN RIDERS

GET WIGWAM CATALOGUES GET INDIAN LITERATURE

Hendee Mfg. Co., Springfield, Mass.

PACIFIC COAST REPRESENTATIVES
THE BRUNETTE CO., 461 MISSION STREET,
SAN FRANCISCO, CAL.

JUST TO REMIND YOU.

Sportsmen should bear in mind that no matter what "make," caliber or gauge of sporting weapons they may use—be these rifles, shotguns or revolvers—they may be sighted with the incomparable Lyman sights, which are made to fit anything in the way of a shooting iron so far produced. The new high power smokeless types are provided for in the most ingenious and satisfactory way, the Mannlicher, Mauser, Remington and Lee Straight Pull actions in particular lending themselves very agreeably to the Lyman principle. The revolver sights are revelations to those who see and use them for the first time, and once placed on a favorite weapon, are deemed indispensable to the owner. In addition to their celebrated sights, the Lyman Co. also make a very superior type of bow-facing rowing gear and oars which have received a wide adoption. Their new catalogue, which will be sent gratis to all who apply, contains also a description of a home made "off-hand" rest of simple construction which will interest every rifleman. Address the Lyman Gun Sight Corporation, Middlefield, Conn.

* * *

EVERY TRAVELER NEEDS ONE.

With "The Little Wonder" Pocket Filter, herewith illustrated, you can obtain a drink wherever there is water, and the drink will be pure, and you can drink without stooping. "The farther down the cooler the water." You reach the cool water with the filter—you don't get the surface water, you get the best and you get it filtered. It is a very hard matter for the average man to get a refreshing drink by stooping over; wet knees and muddy hands are disagreeable. You all have had the experience. You readily see how the filter obviates this. After using one you would never be without it. They are neatly made, the price is reasonable, and they will last for years. It is highly recommended by physicians, and has saved many a sportsman a serious sick spell.

* * *

PERFECTLY RELIABLE.

No sportsman should start for the Adirondacks, the Maine woods or the Rockies without a thoroughly safe and accurate revolver; one that can be instantly depended on in case of emergency, that will shoot quick and hard, yet which is so simple that it will not get out of order. We can confidently recommend the well-known H. & R. revolvers, made by the Harrington & Richardson Arms Co., of Worcester, Mass., as possessing all the requisites of an ideal sporting revolver. They are all made with a patent automatic ejecting device by which the shells are thrown out of the cylinder on bending back the barrel. Their handsomely illustrated catalogue will be sent to any one who mentions the "Western Field."

* * *

HE WILL DEMONSTRATE ITS INFALLIBILITY.

Mr. C. O. LeCompte of Eminence, Ky., on May 1 became a shooting representative of the Laflin & Rand Powder Co. Mr. LeCompte has been known as one of the most prominent amateurs in this country, and will unquestionably make hosts of friends in his new capacity.

HAYNES

"An automobile must be very good, or it is NO good."—*Simeon Ford.*

Many think autos unreliable. Many makes contributed to this impression. The **HAYNES CARS** have supplied most of the official "evidence in rebuttal" by winning **first honors** in every one of seventeen contests.

Stock cars of every model we have sold have been submitted to these trials. All models share in this perfect record of reliability. You buy most automobiles on faith. We ask you to buy the Haynes on what it has proved.

Examine the Haynes Cars **before** you buy. Write for the catalogue now.

HAYNES-APPERSON CO., KOKOMO, INDIANA, U. S. A.

Branch Store, 1420 Michigan Ave., Chicago.

The Oldest Makers of Motor Cars in America. Members Association Licensed Auto. Mfrs.

NEW YORK—Brooklyn Auto. Co., 66 W. 43d St.
BROOKLYN—Brooklyn Auto. Co., 1239 Fulton St
BOSTON—G. M. Brown, 43 Columbus Ave.
BUFFALO—Buffalo Auto. Exchange.
TOLEDO, O—Toledo Motor Car Co.
LOS ANGELES—J. A. Rosesteel.

SEE OUR EXHIBIT AT ST. LOUIS FAIR.

AN IDEAL FURNACE.

Riflemen who mold their own bullets, as well as general artisans who employ melted lead in their vocations, will gladly welcome the very efficient little device herewith illustrated, which is now offered the public by the Ideal Mfg. Co. of New Haven, Conn.

This melting pot, which is designed to be heated by gas, will hold from fifty to seventy-five pounds of metal. The furnace may be located in a permanent place where desired and connected with fixed pipes, or it may be placed temporarily where wanted and connected with a rubber tube. The hole through the gas cock, to

supply the furnace with gas, should not be less than one-quarter of an inch in diameter. With this furnace fifty pounds of metal can be melted in twenty-five or thirty minutes, with a consumption of ten feet of gas, at a cost of about one cent. After the metal is at the proper heat, one-half of the flow of gas may be shut off, so that the cost for the use of gas for one whole day of ten hours is about twenty cents per day. Full directions for its use accompany each furnace, which is sold at a very nominal figure, indeed, considering its great efficiency.

* * *

A LUXURY YOU WILL APPRECIATE.

Everybody loves trout. The elegantly tinted flesh and indescribable flavor of this king of fishes appeals at once to the eye and palate. To the epicure it is a tid-bit of rapture, while even to grosser appetites it is a revelation. The difficulty was heretofore to obtain trout in all their pristine flavor and fine condition. This is no longer an obstacle to your keen enjoyment of this most delicious food since J. E. Bamber of Truckee, Cal., began to cater to an appreciative public. To-day Mr. Bamber can supply you with trout, direct from their native stream to your table, at prices within the reach of all. Take this "pointer" and write him at once. Why deny yourself something that is so easily within your reach. His facilities and prices will agreeably astonish you.

* * *

THE OLD RELIABLE.

"Dupont" has always stood for dependability, and that is why this famous old brand of black and smokeless powder has retained so strong a hold upon the affections of sportsmen the world over. One gets no "squib" or "pop" loads when using Dupont, and there are no "unaccountables" if the gun be held right. It is a record maker in the hands of record making men, and the novice finds nothing but satisfaction and improvement of his shooting in its use. Years of intelligent and costly experiment have placed Dupont on a pedestal by itself and the name will be as famous in the centuries to come as it has been for over a century past.

* * *

THEY ALL USED U. M. C. SHELLS.

Over at Paducah, Ky., where there is located one of the finest gun clubs in this country, W. A. Davis killed 10 birds straight on April 7, winning first place. Mr. Kennedy, however, took the Club Medal, killing 25 out of 26.

T. E. Hubby has been winning a string of high averages in Indian Territory, Oklahoma and Texas. At Nocona on the 6th he broke 97 per cent.; at McCloud, Ok., on the 9th, he proke 90 per cent.; at Aidmore, on the 12th, he broke 95 per cent., and at Paris on the 14th he broke 94 per cent.

C. B. Adams, better known as "Pat" to his friends, stopped over in Bristol on his way to Iowa to shoot at the Interstate Shoot there on April 6 and 7. He succeeded in breaking 366 out of 400 targets.

M. E. Hensler broke 94 out of 100 at Demopolis, April 5, and 93 out of 100 at Tuscaloosa, Ala., April 6. These scores were also made with the U. M. C. shells.

The Union Gun Club held their shoot at Ingleside Sunday, April 10, forty-three shooters contesting. Out of the forty-three, thirty-nine shot U. M. C. Magic, Acme, Majestic or Monarch shells. The first class medal was won by Mr. D. Daniels, shooting a Remington shotgun. The second class medal was won by Mr. Scott Leary. The weather was delightful and the attending shooters and their friends spent a most enjoyable day.

The monthly shoot of the Empire Gun Club was held at Alameda Point on Sunday, April 10, and a feature of the shoot was that all contestants used the Union Metallic Cartridge Company's "Magic" shells.

The Hercules Gun Club held a live bird shoot at Pinole on Sunday, April 24, and twenty-two out of twenty-three shooters used the Union Metallic Cartridge Company's shells, "Magic" and "Monarch," and eight used Remington shotguns. The longest run on live birds was made with the U. M. C. "Magic" shells, by Mr. F. J. Moore of Pinole, Cal., who killed straight up to his thirty-third bird, and W. J. Golcher of San Francisco killed straight up to his twenty-fourth bird. Mr. F. J. Moore shot the "Pattern" load of the California Powder Works. W. J. Golcher shot the C. P. W.'s "Peerless." There were twenty-three contestants in all.

The Millwood Gun Club gave their shoot at Mill Valley on Sunday, April 24, and out of the sixteen contestants twelve used the U. M. C. "Magic" and "Magestic" shells. The best score of the day was made by Mr. R. H. Van Norden with a score of 19 out of 20.

* * *

A RAZOR SAVER.

Every razor, no matter how sharp or how dull, has a saw edge. If you could magnify the blade a thousand times the edge would look like a saw. The invisible particles of steel arrange themselves like saw teeth; and the sharper the razor the more in alignment are these teeth; the duller the razor the more they are like the teeth of a cross-cut saw—that's when the razor pulls.

Stropping naturally pushes the teeth back into alignment, but still the razor grows duller. One-tenth of the dullness comes from wear, nine-tenths from surface rusting.

No matter how dry you wipe a razor after using, you can not wipe in between the saw edges. The moisture from the water and soap form particles of rust. The sharper the edge or the thinner the steel, the greater the rust. Rust adds to rust, and after a while the razor becomes so dull that it has to be honed, or, as many do, put away for a month or so.

During such a rest period the surface rust becomes what is known as brittle rust, and by stropping the brittle rust breaks off and the razor has a new edge. While it cuts better, still it is not a sharp razor as if just honed.

Try this experiment: Rub a few drops of "3 in One" into your razor strop until the leather becomes soft and pliable. Draw the blade of the razor between the thumb and first finger moistened with "3 in One." Then strop razor as usual.

When "3 in One" is put on the blade, all the skin or hair that may adhere to the saw edges is cleaned out and the razor edge absolutely protected from rust. The oil on the strop brings out the grain of the leather, which grain, adhering to the saw edges, wipes them out perfectly, leaving the cutting edge keen and clean. The

oil on the blade forms an imperceptible overcoat that prevents surface rusting on even the most minute steel particles. The razor then is dulled only by wear and tear, and, therefore, stays sharp nine times as long.

The G. W. Cole Co., 141-145 Broadway, New York, make the "3 in One." Write them for sample.

* * *

THE WINCHESTER'S WINNING GAIT.

Winchester goods carried off the honors at the Colusa Inanimate Target Tournament, which was held at Colusa, Cal., on April 23 and 24. Of the seventy-one shooters who faced the traps at this tournament, fifty-one shot Winchester shells and twenty used Winchester "pump" guns. The high average of the tournament was 91 7-10¢, and was made by W. H. Seaver of San Francisco, shooting a Winchester "pump" gun and Winchester "Leader" shells, Selby loading. The longest straight run of consecutive breaks was made by Charles Frank of Colusa, with Winchester "Repeater" shells, Selby loading. Mr. Frank's run was 59 straight. The Northern California Championship medal was won by J. E. Haugh of Gridley with Winchester "Leader" shells. The Gibson Cup, ten pairs of doubles, was captured by Frank Rushtaller of Sacramento with a Winchester "pump" gun and Winchester "Leader" shells. The Six Man Team Trophy was captured by the Colusa team, composed of Messrs. Phillips, Frank, Moulton, Burtis, Gilmour and Bender. Five of the six men that shot in this team used the Winchester "Repeater" shell. The star squad shooting of the tournament was done by the squad composed of Messrs. Newbert, Seaver, Davis, Reed and Johnson. This squad scored 95 out of the possible 100, three different times during the shoot. Three of the five men in this squad shot Winchester "Leader" shells, and two in connection used Winchester "pump" guns.

At the regular monthly club shoot of the Golden Gate Gun Club, which was held at Ingleside on April 17, Messrs. Gamble and Hoyt, both shooting Winchester "pump" guns and Winchester "Leader" shells, captured the two first-class gold medals on the scores of 24 out of a possible 25 each. Mr. Hoyt also scored 15 straight in the merchandise event with the above combination.

"Billy" Crosby, shooting Winchester "Leader" shells, the shell he always shoots, was high gun at the Briston (Tenn.) Gun Club tournament on April 6 and 7. Mr. Crosby scored 195 out of 200 on the first day and 198 out of 200 on the last day, making the grand total of 393 out of the 400 shot at. To drop but seven targets out of four hundred shot at is surely shooting some.

Another shooter who has been demonstrating the reliability of Winchester "Leader" shells is Mr. J. M. Hawkins of Baltimore. At Durham, N. C., April 15, he broke 99 out of 100 and 147 out of 150 targets. At Raleigh, April 17, he scored 97 out of 100, and at Wilson, N. C., April 23, he reached the climax by breaking 100 targets straight. To drop but six targets out of 350 shot at in three different tournaments is surely shooting some.

Shooters of Winchester goods carried off the honors at the San Diego Blue Rock Tournament, which was held at San Diego on April 16 and 17. Mr. J. E. Vaughan of Los Angeles, using Winchester "Leader" shells, the shell he always shoots, made the highest general average of the tournament. Mr. J. A. Gibson of Nordhoff, shooting Winchester "Leader" shells, made the longest straight run of consecutive breaks during the tournament, and Mr. C. B. Monaghan of Santa Ana, shooting a Winchester "pump" gun, captured the handsome Jenk's trophy.

Shooters of Winchester goods carried off the honors at the Sixteenth Semi-Annual Inanimate Target Tournament of the Los Angeles Gun Club, which was held near Sherman Junction, Los Angeles County, on the 6th, 7th and 8th inst. Of the sixty-four shooters that faced the traps at this tournament, fifty-one shot Winchester "Leader" shells and twelve used Winchester "pump" guns. The highest general average of the tournament, 90¼¢, was made by W. H. Seaver of San Francisco, with a Winchester "pump" gun and "Leader" shells, Selby loading. The second high average was made by J. E. Vaughan of Los Angeles, with a Smith gun and "Leader" shells, while the third high average was captured by C. B. Monaghan of Santa Ana with a Winchester "pump" and "Leader" shells. The Two Man Team Championship Trophy, shot for on the first day, was captured by F. B. Mills and C. B. Monaghan, both of Santa Ana, and both using Winchester guns and shells, after shooting off two ties with J. E. Vaughan and J. M. Inman of Los Angeles. Mr. Inman shot a Winchester "pump" gun and both he and Mr. Vaughan used the "Leader" shell. The Five Men Team Championship Cup, shot for on the second day, was won by the team composed of C. Julian and F. S. Ecker of San Diego, O. O. Orr of Los Angeles, and F. B. Mills and C. B. Monoghan of Santa Ana. Messrs. Orr, Mills and Monoghan shot Winchester guns and shells. The Tufts-Lyon Medal, also shot for on the second day of the tournament, was won by C. P. Monoghan, after shooting off a tie with F. B. Mills.

The Individual Championship Diamond Medal and also the big Miss-and-Out event, shot on the last day of the tournament, were both won by J. E. Vaughan of Los Angeles, with a Smith gun and Winchester "Leader" shells.

The Gunsmith Says B·G·I·

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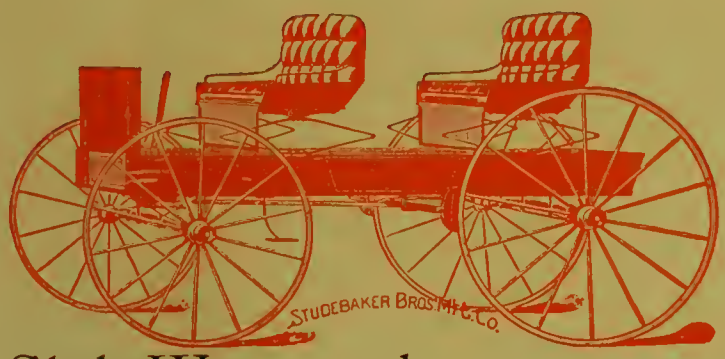

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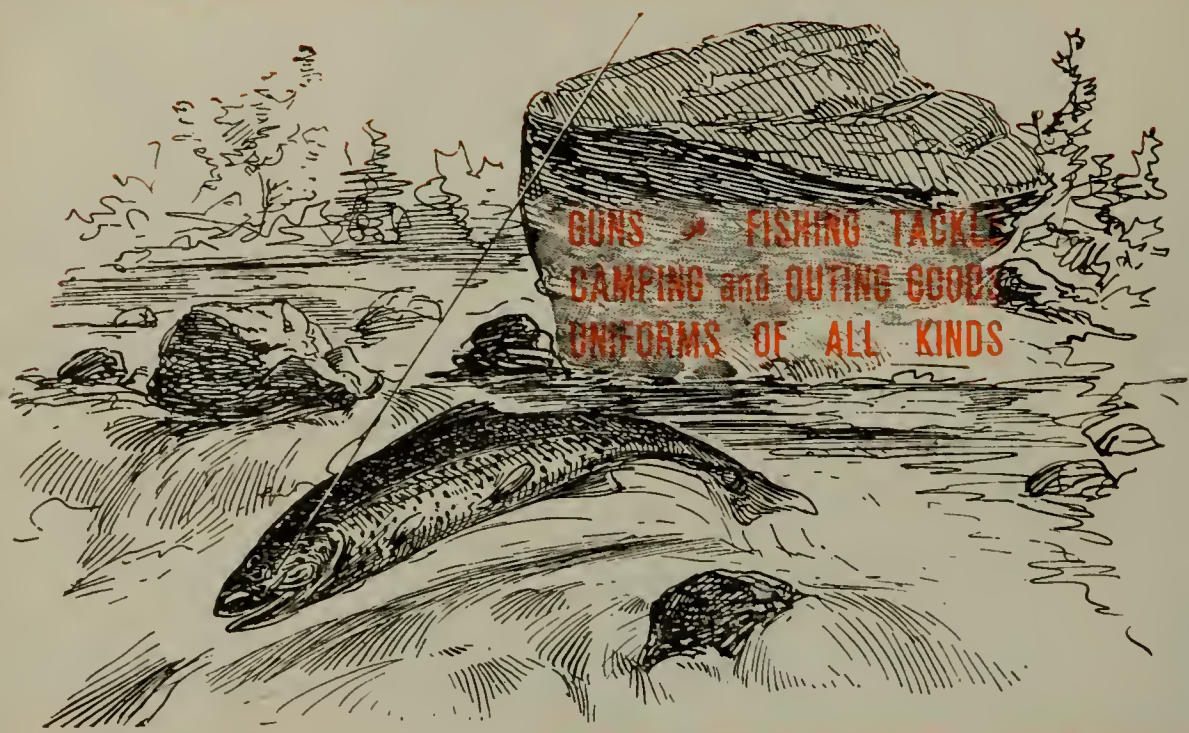

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F. A. Lathe, Photo.

THE BROOK.

(See opposite page.)

WESTERN FIELD.

VOL. 4 JULY, 1904. NO. 6.

TO A BROOK.

OH! little brook, in childhood's day
I heard your music soft and clear,
And often since, tho' miles away,
Your voice has reached my dreaming ear.

In some lone hour when memories sad
Have caused a tear to dim mine eye,
I've heard again your accents glad,
As heav'nly music floating by.

And all on earth, dear little rill,
Is changed to me save you alone;
Your echoes manhood's heart oft fill
With pictures of its childhood's home.

Down isles of memory, long untrod,
Sound footsteps from the vanished years,
Of feet that rest beneath the sod,
That love has watered oft with tears.

When sweet yet solemn thoughts arise,
When memory's golden chain is stirred.
Each link recalls some loving eye,
Some vanished face, or form, or word.

And thus will Love forever dream,
And longing glances backward cast,
While Hope will light despair with gleams
Gathered by memory from the past.

So, little brook, my constant friend,
Thy purity—thy childlike song
Shall live in hearts of other men,
In years to come thy course along.

Forever onward toward the sea
Thy waters with a song shall flow;
And generations yet to be,
Shall hear thee, and their love bestow.

—*Benjamin P. Keith.*

A DEER HUNT IN THE REDWOODS OF MENDOCINO.

By James L. Skiffington.

ONE early August morning we left one of the numerous summer resorts of Mendocino County for a chase after the wily buck. For the first few miles we traveled through some of the grand scenery for which this county is famed. The lofty mountains, towering on either hand, looked grand in the light of the rising sun. At our feet, tumbling and gurgling over the rocks, lay a branch of Big River, in whose depths many fine trout were to be seen.

After going about two miles we turned into Montgomery Gulch. Here, on rich flat bottom land, grows some of the finest redwoods of California (excepting of course the big groves of the government reserves). The redwoods here are indeed worth seeing. for they are so thick that the sun never reaches the ground below, and trees from ten to twenty feet in diameter are on every hand. As the saying is, "You have to look twice" to see the tops of these giants of the forest. At their bases the beautiful five-fingered and "maiden-hair" ferns grow in abundance. Add to this a stream of the purest water, and you have one of the finest camping grounds on earth.

Our party consisted of three city sportsmen and myself, I handling the dogs and acting as guide. After leaving the redwoods we climbed the mountains adjoining. Just bordering the redwood is a growth of oak, madrone and other hardwood timbers, and passing through this you come to the chemisal—the natural feed of the deer. Climbing up one of the many ridges brings you to a point where you can look for miles over thousands of acres of the finest hunting-grounds in California.

Many condemn hunting deer with dogs, and I am going to say just a word in defense of that kind of sport. If you have dogs that will pursue a deer until it is utterly exhausted and can no longer run or defend itself, I say that is wrong; but if you use dogs that only jump the deer out of their hiding places and run them fast from ten

"HE WEIGHED 154 POUNDS."

minutes to a half hour, I maintain that a deer has a better chance of escaping, and certainly more of a chance to defend himself than he has if still hunted, when you sneak on him when he is feeding and shoot him down in cold blood. You may say "The dogs run does and fawns as well." So they do, but a fifteen minutes' run does not hurt either doe or fawn, and no true sportsman will shoot either. Besides, a doe naturally leads the dogs away from her fawn. And if you think it is not more sport, and a better trial of your skill with a rifle, to shoot at a fast-running deer than at one standing still, a single experience will disillusion you.

Our pack was composed of an English foxhound, "Ole," a fox terrier, "Fido," and a setter (half Gordon and half English). Ole came from imported stock and his blood is the bluest of the blue, for he was one of Walter Hobart's Burlingame Park pack. Fido, the terrier, has just a dash of hound in him, which gives him a good nose, and he makes a fine running mate for Ole. The setter is invaluable for leading you to where a badly wounded deer has crawled away to some hidden spot to die.

I placed the three city fellows on the ridge about two hundred yards apart, upon rocks where they could see, and went back to the edge of the timber to start the dogs. Al-

most at once Ole was heard from, for the deer had not left their feeding grounds very long. That long-drawn bellow set every hunter on the lookout and when the bellows began to come thick and fast their eyes were gleaming with excitement. The sharp "yap, yap," of the terrier was heard between times and we knew they were crowding the deer hard. Suddenly he came in sight, away down at the bottom of the ridge, and the sharp crack of a .30-30 was heard. Just one shot, and I thought "A miss, sure!" But soon the dogs were still and I knew that one deer was down.

I went over where I could see the hunters on the ridge, and the one away at the top halloed and told me there was a deer at the bottom of the ridge close to where I was. I looked around, and sure enough, I found a fat little spike lying there. My opinion of city hunters rose considerably, for it was a good five-hundred-yard shot. I let the dogs go again, and in fifteen minutes more we had another spike. But this was small game, and we were looking for a big old fellow with a fine head of horns.

This time the dogs were longer starting him, for it was getting later in the day and the track was harder to follow, and most likely he would prove to be an old fellow, for they are harder to find and take more precaution in going to their beds. But at last they started, and I heard the *crack! crack!* of the rifles from several different places. He had evidently come out within sight of all the party, and I began to get anxious, for the repeated shooting indicated that they were missing him. I little expected to get a shot myself, for in starting the dogs where they would drive the deer out where the others could see them, I had to go where it was not likely the deer would come. But I was standing where I could look into a small opening in the brush, and all at once there came into view a fine big buck. His head was well back and he was running hard, but saw me almost as soon as I saw him.

He stopped and gave me an opportunity for a good shot. I have killed a whole lot of deer, but I wanted that one very bad, and when I raised the old .44 I found that I was shaking as bad as I did when about to shoot at my first one. I soon collected my wits, however, and a shot in the neck brought to the ground as fine a deer as one could wish to kill. His horns were perfect and extra long, though they had but three points on each side. When we got to the hotel and weighed him we found that he tipped the scales at one hundred and fifty-four pounds.

W. W. Richards, Photo

OUR DAY'S BAG.

AFTER BIG FISH IN THE CHANNEL.

By Harry H. Dunn.

BETWEEN the coast line of Los Angeles County, California, and the nearest of the Channel Islands, stretches thirty miles of as beautiful sea as lies outdoors, and it washes on its western edge an isle more fair than any that ever slept on the bosom of the Ægean in the Golden Age. This is Catalina, whose hills are filled with wild goats and whose waters, at certain seasons of the year, are not less filled with the finest of game fish. The seas about Catalina are ever still, every ready for the ninety-foot yacht or the little rowboat as the sportsman may prefer, and equally sure to return the one or the other filled with the treasures of the deep for him who knows how to go after them.

There are three principal game fishes of the larger sort to be sought there—the jewfish, king of his tribe; the yellowtail, the greatest fighter in the world except the tarpon; and the tuna, whose strength and diving propensities are responsible for more lost tackle than any other one denizen of these waters. Fishing for one or all of these may be and is conducted in the same manner, *i. e.*, with a hand line of strength enough to hold a two-year-old colt, but this, though perhaps productive of big bags, is hardly sport, and is not countenanced by any of the numerous sportsmen who have helped to make Avalon famous as a deep-sea fishing resort the world over. To get the sport at its best, rise early on a June morning—for the big fellows are beginning to run about now—and, having provided yourself with a good pole (of course if you are a real, dyed-in-the-wool fisherman you already have two or three), and go down to the sea in a small launch at whose stern trails a rowboat of size sufficient to carry yourself and the boatman. Any of the several guides can take you to good fishing grounds just outside the bay of Avalon, and when at last you have struck your fish they can be of great assistance to you, especially if this is your first attempt at deep-sea fishing. Then, when you have reached the fishing grounds, the launch is anchored and you and your boatman step into the rowboat, cast it off and float adrift on the largest of oceans after the biggest game fish in the world, with a light pole in your hand and a tiny 21-thread line on your reel. You never realize exactly how small a line that is until you have been in just this position, but you haven't long to wait for the guide puts a living smelt or a bone jig on your hook, accordingly as you are going to cast for jewfish or troll for yellowtail, and with steady, practiced strokes pulls the little boat out toward the blue haze that you know is the mainland, thirty miles away.

But he never gets there. If there are many fish about, your bait scarcely sinks beneath the water before there is something doing in no uncertain manner. If a jewfish takes it, there will come a slow tug, then a steady pull, and then he will "sound" on you, going down—down—down, until the very reel cries out in terror. Now is the time that you value every foot of that thin green thread and pray for him to stop before the entire four hundred feet is gone. Sometimes, after he stops, which he has to do sooner or later, you think you have lost him, and you try your line ever so gently with your reel, just to see if he is gone for good. He feels the bite of the hook in his jaw and comes up at about four times the speed with which he went down, and you are powerless to take in the line as fast as he brings it up, so you reel in as best you can and if he doesn't double on you too much and finally cut the line, you at last get even with him, and maybe have a little to spare, so that when he goes down again you will have a somewhat better hold on him. Yet he delays sounding again with remarkable perversity, and starts for San Clemente or some other one of the outlying islands with a speed that taxes the strong arms of the boatman to the limit. But the boat follows after as best it may, you letting him have the line when you can and taking it in when he permits you to.

C. C. Pierce & Co., Photo

THE BAY AT AVALON.

Sometimes he comes straight back toward the boat, swimming but a few feet under the water and plainly visible in this clear sea, then turning away sharply to take another fall out of your reel.

So the battle goes, often lasting for two or three hours, until at last more tired out than the fish is, you pull him alongside the boat where the waiting oarsman sticks the gaff into his black side and lifts him into the boat with the remark: "Little feller, 'bout ninety pounds, I guess," and you wonder what kind of stuff those men are made of who caught the three hundred and fifty pounder that is on exhibition at the hotel. But the fish are there to substantiate the Avalon fish stories, and they must be believed, willy-nilly. Down in your heart you hope, before the season is over, to rival the big one at the hotel, and visions even of the possession of the cup the Tuna Club offers begin to flit through your mind; but for nine-tenths of the fishermen who go to Avalon that is as far as they ever get, for the larger and older jewfish are wary fellows and it requires a knowledge of their haunts and habits that only longer experience with them than most transients may get can give.

But if you had put on the bone jig, and the yellowtail were running strong, your strike would have been quite different, your fight shorter and your fish of a weight of probably less than fifty pounds. The yellowtail might have struck at your live bait, but in general more of these fish are caught off wharves that run into deep water with live bait than are caught from boats with the same bait, though many are caught from the latter with jigs, and I have no doubt that the old-fashioned pickerel spoon in common use on Eastern rivers would be of service here as well if once tried. What the yellowtail is, is a question that no scientist has been able to answer exactly as yet, though it is very common up and down the southwest coast, and opportunities of study are not lacking. The jewfish is a bass of the sea, nothing else, and he shows it in every line of his

Pierce, Photo A GOOD JEWFISH.

huge body and in every motion when beneath the waves. There is no fish so like the jewfish in manner of life and in the fight he puts up, when struck, as is the common black bass of Eastern rivers and lakes, though of course the difference in size between the two makes the comparison seem disproportionate. The yellowtail, however, long and slim of body, are in quite another class of fish, and indeed they are the aristocrats of southern waters. They lead a strenuous life, for the sharks love yellowtail above all other meat, and it is no uncommon thing for a fisherman to have a safely hooked yellowtail bitten squarely in two before he has lifted it into the boat. In fact, I have seen this very thing done from the wharf at Redondo—one of the best points for shore fishing on the coast south of Santa Barbara—and a heavier hook, baited with the remaining piece of yellowtail and thrown back into the ocean caught the robber as he returned to see what he had left. The yellowtail fights like a trout, only more so, and to my mind there is more sport in fishing for them, even though they weigh less than either the jewfish or the tuna, than is to be had with either of the latter two. A three-hundred-pound sea bass on an eight-ounce rod has always been a little too large a contract for me, but the yellowtail come as hard even if they do weigh less, and they look much prettier as they fight every inch of the way through the green water or on top of it.

There is four hundred feet of limpid sea off much of the Catalina coast, and if you expect to get a big fish it is a good plan to take along at least that much line, for every one you strike seems determined to explore the nethermost depths of that bit of sea bottom over which he rose to your lure. There are myriads of small fish here, too, but who ever thinks of mackerel or smelt, or even bass, when the yellowtail and jewfish and tuna are running?

And, by the way, that reminds me that the king fighter of the whole bunch is the tuna, who, in reality, is nothing but an overgrown mackerel. No trouble to classify him; his peculiar tail and the arrangement of the fins would do that were there nothing else to go by. When a real lively tuna of a hundred pounds or so hits the nethermost end of the line it feels about as if a good strong static machine had broken loose, and the worst part of it is that, like the static machine, you can't let go just when you happen to want to. If he is a jumper—and most tuna are—he will soon make his appearance at the surface of the water, leaping like a salmon at play, then sounding, only to rise again, shooting amid a shower of silvery spray ten or fifteen feet out of the water and falling back with a spat and a splash that can be heard for half a mile. A tuna knows all the tricks of both the yellowtail and the jewfish and a few of his own manufacture besides. To these he adds a strength greater

Pierce, Photo TUNA.

in proportion to his size than that of any other fish, while his speed through the water is something marvelous. When a tuna takes a good hold on your line you have got him "for better or for worse," for once hooked they never let go, would not if they could, but fight to the finish, which, often as not, sees the fish slipping away through the green depths with eight feet of good leader trailing from his mouth while the man in the boat reels in the remains of his line. There is some consolation for unlucky tuna fishermen, however, in the fact that the flesh of the tuna is of practically no use for eating, and that most of those caught at Avalon are thrown back into the bay for the benefit of the gulls and sharks, whose appetites never vary and who are not in the least subject to spells of indigestion.

When the big fish are not running—and even sometimes when they are—there is excellent fishing to be had in the rocky coves and about the headlands of Catalina. Bass of several sorts, small when compared with the huge black sea-bass, are plentiful, and there is much sport in landing them, for they are fighters from the time they feel the barb in their tender mouths. A short distance out toward the mainland good trolling for barracuda and other fish may be had, but this field belongs mostly to the market fishermen and is not much disturbed by sportsmen. The "sand dab" grounds, where these toothsome fishes were once caught in such numbers, are about depleted, and there is so little sport in fishing in three or four hundred feet of water with a hand line for a fish not more than six inches long, and making no fight whatever for its liberty, that no one has ever called this a sport. Fly casting for mackerel, when they are running plentifully, is far and away the best of the lighter fishing along the coast, and at some later date I will try to tell the readers of "Western Field" of the sport I have had along this line.

BY WAGON TO THE BIG TREES.

By William S. Rice.

ON A glorious morn in August, just as the grapes were purpling and reddening in the vineyards of the great San Joaquin Valley, a conveyance drawn by a faithful old nag, "Barry," that has seen better days during a remote period of antiquity, slowly crept across the wide plains heading for the Sierra foothills, whose faint purplish outlines loomed up more and more grandly as the day wore on.

The wagon contained, besides a goodly camp outfit, provisions for two calculated to last for two weeks, a stack of reading matter and several cameras, tripods, etc.

The writer and his friend frequently cast their weather eyes upon the various camp requisites, which either lay on the floor of the wagon box, or were anchored with stout wires to the sides and roof of the covering.

No country had ever better natural roads than these they were traversing; the weather was ideal, not too hot for comfort, with a blue sky overhead over which flitted occasionally great masses of cumulous clouds. Along the road the frequent hop, skip and jump of the jack-rabbits, or the darting of ground squirrels, as large as gray squirrels, in every direction for their holes, or for lofty boulders to inspect the campers as their wagon sped along, caused just enough excitement to relieve the monotonous landscape of tediousness.

Late in the afternoon, as the sun was hiding behind a glorious bank of purple and yellow clouds, the wagon entered the gateway of the soaring hills on the east, where blue and live-oaks interspersed with the buckeye and sabine pine formed pleasant groves along a partially died up watercourse. Over the brown and yellow carpet of dry grass and pine needles, bands of plumed quail wheeled and countermarched like wings of an army, among the chaparral and chemisal, glancing up at us so nonchalantly that we fancied they were conscious that the season had not yet opened.

The question of finding a suitable camp for the night now perplexed the new-comers, as never before had they been so thrown upon their own resources. Truly were they strangers in a strange land. Firewood and drinking water were the main things to be considered. Of the former, one had simply to be energetic for several minutes, and a heap of resinous pine cones would be his reward, but the latter was a more serious matter, as we had a horse, too, to consider, besides our own supply.

THE "MOTHER OF THE FOREST."

The ideal place was reached about a mile farther on, at Mountain Gate Inn, where we were directed to a camp a short distance from the road, among a cluster of sabine or long-needled pines, where the wagon came to a halt just in time, for the shades of night were enveloping the foothills and it became necessary to light a campfire and the lan-

tern in order to preserve order out of chaos, as preparations were quickly made for the strenuous life in camp.

The horse was quickly unharnessed, rubbed down and given his hay and barley, while the exploration of the locality began; the site of our camp had once been a miner's hut, for evidences still remained in the little spring-house at the foot of the gully, and a stone fireplace and chimney surrounded by a crumbling pile of stones and shingles. In the old chimney fireplace a roaring fire of pine cones and bits of old shingles was soon burning, and the grateful odor of steaming coffee and fried potatoes filled the air with their incense.

To the two novices, fresh from their office desks in the city, their first taste of camp life seemed very odd and romantic, as they sat around the fitful glare of the old fireplace, eating their evening meal where perhaps way back "in the days of old, the days of gold," some old "'49er" dwelt while searching for the precious metal. What tales of hope and disappointment, mingled with an occasional "find," would those old walls have told could they but have spoken of the scenes which here transpired in the days long passed!

With nothing overhead save the soughing pine boughs and a sky flecked with myriads of twinkling stars, the campers rolled themselves in their blankets and stretched out full length upon the pine-needle carpeted ground to rest until the morrow came to speed them on their way.

An early start was made the following morning; up through regions of live-oak and sabine pine the road continued. Through valley after valley, connected by winding grades, we climbed ever higher. The lowland vegetation gave way to groves of yellow pine; the inclosing hills became more solidly green with frequent dense undergrowths of manzanita; anon we came upon several flocks of sheep with their shepherds, which came trooping down the mountain side in a cloud of dust and crossed the almost dry bed of a stagnant stream. The sight was so unusual and picturesque—the flock was several minutes in passing—that cameras were unpacked and several snapshots made of the flock.

Frequent traces were seen of former gold

"THIS IS THE FOREST PRIMEVAL."

diggings, and tunnels in the hillsides reminded us of the strenuous life of the searcher after precious metals, and the primitive methods employed in early days.

By nightfall we struck camp just outside the town of Angels, where by an irrigation ditch of clear running water we found the best site that was offered.

The next morning we retraced our way a bit to pass thrrough the mining town of Angels, down through a winding narrow street with terraced yards and houses on one side and busy mines on the otner. We longed to stop over and go down one of the mines, but as we had yet one and one half day's journey before us ere we reached the Mecca of our pilgrimage, the Calaveras grove of big trees, we concluded that it would be wiser to keep on the road and reach the next town, Murphy's, and there go to see the famous Mercer's Cave, and pitch camp that night by a branch of the San Antone, where we were told a good camping ground was to be found.

The morrow found us again breaking camp, and that afternoon we hoped to arrive at our destination. We were now in a lumbering region, and the roads were thick with dust, which but for its color might have been drifted snow, six and eight inches deep. The heavy logging teams plowed and ground the earth into powder, and frequently we halted on the edge of a precipice to allow a lumber team pass with its span of eight or twelve horses.

A climb of three miles, up, up, up a steep grade landed us in a different region where yellow pines and the giant flat-topped sugar pines, *libocedrus*, fir and other giant monarchs blended in one grand medley to form the forest of the Sierras.

A BRANCH OF THE SAN ANTONE.

The deepening shadows of the densely timbered forest through which we were descending impressively intimated that we were soon to enter the imposing presence of those forest monarchs, the Big Trees of Calaveras (*Sequoia gigantea*), the largest and first discovered of the groves of California's big trees.

Here in a gently sloping declivity or hollow of the main divide, separating San Antone Creek on the north and the North Fork

of the Stanislaus on the south, is located this remarkable grove.

"The Sentinels," which form an arch of triumph over the roadway, were the first to attract our eyes. Each is over 300 feet in height, and the larger one of the two is 23 feet in diameter at the base.

After refreshment and rest we were in better condition to examine the different trees which had attracted us thither. One thought, one feeling, one emotion—that of vastness, sublimity, profoundness—pervaded our souls, for there within an area of about fifty acres, there are ninety-three trees of large size, twenty of which exceed twenty-five feet in diameter at the base, and average about seventy-five feet in circumference.

Most of the larger trees have been slightly disfigured by names carved and painted on marble tablets and countersunk into the bark, one by removing the bark in sections to be set up in a London exposition, the other felled because some enterprising vandal thought it would be novel to use the stump as a dancing floor, and the monarch, which resisted the elements for thousands of years, now lies a hopeless mass of ruins. Verily, how little veneration does the average man possess! This stump is twenty-five feet across, although the tree was cut off six feet above ground.

The majestic sequoia is king of coniferous trees, and is certainly the "noblest of a noble race." These colossal trees are as wonderful in the fineness of their beauty and proportions as they are in stature. Their great fluted trunks—cinnamon, brown and gray—rise in the aisles of the forest like Greek pillars, to the enormous height of over 200 and 300 feet, with branches often heavier than unusually large trees. The bark is several feet in thickness, very spongy, and of a rich red brown, and the foliage bears a strong resemblance to both cedar and pine.

The name "sequoia" is of Indian origin. Sequoyah was a famous Cherokee Indian chief of mixed blood. His intellectual and inventive prominence exalted him as far above his people as the lofty redwoods of the Coast Range (*Sequoia sempervirens*) towered above other forest trees. This coincidence suggested to the botanist Endlicher, the propriety of honorably perpetuating the name of this memorable chief through one

ONE OF THE SENTINELS.

of the most valuable and imposing productions of the vegetable kingdom.

Strangely paradoxical as it may seem, the Big Trees bear some of the smallest of cones, those of the *gigantea* averaging 2¼ inches long, while those of its cousin in the Coast Range (*Sequoia sempervirens*) measure only one inch in length.

The big trees are scattered through the Sierras only in isolated groups, some of which are almost forty miles apart, and they grow generally in sheltered hollows below the tops of ridges, usually between four and eight thousand feet above sea level.

There is a dense resinous gum which exudes from the tree in considerable quantity where forest fires have consumed the wood, and much of this having run into the burned cavity and having become ignited, has largely contributed to the destruction of numbers of the species.

As we penetrated still deeper the balsamic recesses of this forest primeval—trees that have stood the climatic changes and storms of more than thirty centuries—it seemed a new world to us nature-lovers, and filled with

awe and reverence for these oldest of living things in the world, in fancy our thoughts traveled back through the ages these trees have seen, of the summers' heat and winters' cold, and forest fires that have passed unheeded about them, and of the successive races of men and animals that have passed in review beneath their evergreen boughs.

What was one of the most prominent of the trees in the grove is now a shattered ruin. This once bore the queenly name of "Mother of the Forest." In the summer of 1854 its bark was removed to the height of 116 feet, to be sent to the Crystal Palace Exposition in London.

Now, alas! the noble "Mother of the Forest" dismantled of her once proud beauty, still stands out a reproving, yet magnificent ruin. Even the elements have seemed to have sympathized with her in the unmerited disgrace brought to her by the ax, as the storms of recent winters have kept hastening her dismemberment, the sooner to cover up this deed of vandalism.

A short distance from this lies the prostrate form of one that was probably the tallest sequoia that ever grew—the "Father of the Forest." This tree, when standing in its primitive majesty, rose to the enormous height of over 400 feet, and although limbless, without bark, and even its heart decayed and gone, it has still proportions that once could crown him king of the grove. In falling it struck against "Old Hercules," another old-time rival in size, by which the upper part of his trunk was shivered into fragments which were scattered in every direction.

While the fire has eaten out the heart of the "Father of the Forest," and consumed his huge limbs, as of many others, the following measurements will prove that he was among the giants of former days: From the roots to where the center of the trunk can be reached on horseback, it is 90 feet; the distance that one can ride erect through it on horseback is 82 feet 6 inches; height of entrance, 9 feet 4 inches; or arch to floor, 10 feet 9 inches; across the roots it is 28 feet; extreme length to where any sign of top could be found, 365 feet.

But no one can realize the actual size of this giant without climbing to its top and walking down the entire length; by this we found it to be over 200 feet to the first limb. The handsome circular family group of sequoias near by probably assisted in suggesting the name of this prostrate forest sire.

And this is only one of the numerous vegetable giants that Time's scythe has laid low, for, near here, lies "Old Hercules," the largest standing tree in the grove until 1862, then being 375 feet in height, by 95 feet in circumference at the ground (this was blown down during that year by a heavy storm), the "Miner's Cabin," 319 feet long by 21 feet in diameter, thrown over by a gale in 1860, and the "Fallen Monarch," which has probably been down for centuries.

The living and representative trees of the Calaveras grove consists of ten that are each 30 feet in diameter, and over 70 that measure from 15 to 30 feet at the ground.

We made several trips through the entire grove on successively gray and sunny days, studying the atmospheric effects, lingering at the foot of each tree and indulging in the portrayal of all the characteristics, size and peculiarities of each with our cameras and water-colors, for such was the enchanting spell they cast upon the beholder, when in their immediate presence, that they would fain detain us too long from other scenes which we promised ourselves upon the return trip.

But our short vacation was rapidly drawing to a close, far more so than we could wish, so gathering up our outfit and taking the precaution to extinguish the smoldering embers of our campfire, we turned our "nag" westward to take up again the cares and duties of civilization where we left them just ten days before.

F. A. Lathe, Photo

A SMALL BOY AND A BIG STEELHEAD.

By W. R. McFarland.

SOME years ago, in the good old "steelhead days" on Russian River, mid-winter anglers got up before daylight at El Bonita Hotel, Duncan's Mills, and after "rustling" their own breakfast in the kitchen sallied forth in driving rain or freezing wind, rigged out in gum boots, overcoats and woolen mittens. They hied themselves to the river, some to build a driftwood fire by which to keep warm while watching "the works" to see that no passing steelhead sneaked off with a chunk of salmon roe, and others to keep their fingers warm on the oars while trolling with a small spinner.

The writer was alone one early morning, trolling in the big pool at the mouth of Austin Creek. After an hour or so of fruitless endeavor I stopped to watch a very small farmer boy who appeared on the bank of the river with a very crooked and knotty willow limb, to which was tied a few feet of cotton line with a hook at the end, baited with a small piece of stale salmon roe, discarded by some angler of the day before. He made a cast into the pool and was immediately rewarded by a strike, and at once began passing the pole behind him, hand over hand, in a hurried effort to get hold of the line, which he quickly accomplished, thus keeping the fish coming to him "head on" all the time. During this interesting pantomime, the writer, supposing that the boy had fastened to a big "hard-mouth," not dreaming that the lad could have hooked on to a steelhead in a place where his own fine tackle and hour's work had failed to raise one, kept encouraging the little fellow by calling out "Stay with him, sonny, stay with him!"

Stay with him he did, for in a few seconds he had dragged him ingloriously out on the sand, and was trying his best to get his fingers into the fish's gills, a proposition to which the steelhead, full of vigor, strenuously objected, and there was a tremendous

flopping and jumping about on the sand.

"Sit down on him, sonny, sit down on him!" I yelled. At this the boy, who had got between the fish and the water, glanced over his shoulder at me for an instant, then threw himself bodily upon the big fish, frantically endeavoring to get a firm hold on his prize.

From my boat out in the pool I could distinctly see the fish pounding the sand with his tail on one side of the boy, and with his head on the other, as the lad lay stretched out with his stomach across the fish and his feet in the water. At last in desperation he blurted out: "—— you! Wait till I get my knife!" and reaching back into the hip pocket of his overalls he got out his jack-knife and at once began to viciously stab the fish in the head, but without at all changing his position across it. His efforts finally had the desired effect, and when the fish stopped flopping he got a good hold in its gills and ran up the bank a full thirty feet away from the water, dragging the "pole" and line with him, the hook being still in the fish's mouth. He dropped his prize on the sand and turning around toward me with legs wide apart and bulging eyes panted out: "He—he—he's a—he's a great big salmon!"

Shade of Isaac Walton! what a scene—and no one to enjoy it with me! You may believe the hills behind me echoed my keen appreciation, and the small boy only grinned and quickly disappeared down the river.

This should logically be the end of this story, but I am tempted to continue it. That night after supper a number of us were sitting around the fire in the big room of the hotel when the story was duly told and enjoyed. It so happened that fishing was poor that day, and when we were recounting our various luck, mine host Morgan remarked that Mr. Blank had caught one twelve-pound fish in the morning, and had gone to the city on the noon train. It suddenly dawned upon Morgan's mind that Mr. Blank had captured the boy's fish, for, said he, "the fish had been stabbed repeatedly in the head, and was all covered with sand." That settled it! Another round of "hot Scotch" was ordered to celebrate the exposure of another fish liar.

A week later found me on Austin Creek pool again, when the same small boy appeared, but this time with a brand new rod and reel, and when I commented on his outfit he told me that he had sold his big salmon to a city fisherman for money enough to buy his outfit. I have not seen the boy since, but if he still lives on Russian River I will wager he has added other "big salmon" to his string, since the day when he caught and stabbed his first.

For he certainly had the true game spirit to make an angler and his opportunities were unequalled.

CALIFORNIA'S GAMEST BIRD.

By Walter R. Welch.

HAT sportsman is there who having had the pleasure of seeing the California valley quail has not at once fallen in love with him? In my opinion there is no bird so gamey and resourceful, and none which can more sharply test the nerve, eye and skill of the man behind the gun, or prove the good qualities of a dog as can this little prince of American partridges.

Valley quail are found in all the valleys and foothills throughout the length and breadth of California, and not many years ago were very plentiful; but owing to the drain made upon them by the privilege heretofore granted, to sell game, aggravated by the non-bag limit, their numbers greatly decreased until 1901 when a law was passed limiting the bag in one day to twenty-five birds and prohibiting their sale. Since that time they have commenced to increase until now it is no difficult task for one to leave San Francisco or other large cities in this State in the morning and return the evening of the same day with the bag limit.

The birds are found in large bevies in all the hills, ravines and valleys; along the edges of the hay and grain fields; in the stock pastures, orchards and vineyards—in fact most anywhere where they find proper cover, water and feed, and are not too indiscriminately shot at or hunted. On the bevies being flushed and followed they scatter and lie well and close, and afford great sport in shooting over a well-trained dog. They will lie until almost stepped upon and when they do flush will rise with a great whirr of wings that will startle almost any one, and are off like a streak of greased lightning, presenting a mark that will test the eye and nerve of the best marksmen. He who thinks he is "in it" with the best of them at blue rocks, jack-snipe or bob-whites, will find that something is wrong when he first goes up against the valley quail, and he will burn some powder before he gets on to the knack of stopping the little blue streaks.

When the warm sunshine of early spring awakens life to renewed activities, and the buckeye and wild lilac are bursting forth into bloom, then it is that the valley quail turns his thoughts to love. Well he knows, as with pardonable pride he loudly proclaims that fact to all passersby, that he will not be molested during this felicitous season.

Standing erect—majestic, proud, haughty and defiant—he calls from the top of some old stump or dead bush: "*Here! Here! Here! We camp here!*" in a loud, clear voice, and the country folk all know that the quail are nesting.

Having selected his companion for the summer the pair seek a suitable place to build the nest, secure from skunk, dog and cat or the thoughtless schoolboy. The nest is usually built in a slight depression in the ground and is chiefly composed of dry leaves and a few spears of grass. A great many nests are built in cocks of hay or in hay and grain fields, and are consequently destroyed by thoughtless farmers; the more careful husbandman, however, takes the trouble to mark the nests by driving, near by, a stake to which is attached a white rag, thus being able to know where the nests are and to avoid destroying them while harvesting his crop. He knows that the quail are valuable to him in more ways than one, and acts both wisely and humanely in accordance with that knowledge. In these nests are deposited from fourteen to twenty-two sharp-pointed oval eggs of a dirty white color, covered with dark brown spots. The male assists in the incubation of the eggs as well as in the care of the young—and a proud father indeed is he! In about twenty-three days the eggs hatch and the young have often been seen running from the nest with part of the eggshell attached to them. The eggs all hatch about the same time, and the whole family do not go any great distance from the nest, but nevertheless never remain very near it. I have often gone to a nest and found the eggs all right, none being even picked, and returned in a few hours to find all the eggs hatched out and the

CALIFORNIA'S GAMEST BIRD.

family moved. The old folks keep everything very quiet for the first six or eight days after hatching, and no matter how careful one may watch he will see and hear but little of them.

In about ten days the young are able to fly a little; they are fed on insects, and soon learn that their lives depend on their sharp eyes and swift movements. Contrary to the habits of some birds, the male assists in feeding the young, and the family remain together and often, when not disturbed, raise two broods of young in one season. In this case the male takes care of the first brood after they are about fifteen days old.

The food of the valley quail consists mostly of insects, grass and weed seeds, to which might be added a little grain, but they are never destructive of crops of any kind.

Few birds more keenly respond to protection than do the valley quail, but on being much hunted they become very wild and resort to places hard to get at and shoot over. Unlike the bob-white, they roost in trees and are consequently better protected from their natural enemies; often when flushed they will scatter and alight in the live-oaks from whose thick branches it is hard to flush them. The different bevies of young birds remain together in the little valleys in the foothills and do not migrate, remaining all summer near where they were hatched. Late in the fall, when the days get short and the evenings and mornings cold and frosty, they will go to the tops of the hills where they will be able to get the early morning and late evening sun. Here three or four families will come together and form one large bevy; these bevies will in turn consolidate, sometimes there being as many as 300 to 1,000 birds in such an aggregation. These large bevies remain together all winter and do not disband until the next mating season, when those that have mated in the spring will leave the big bevies and go to the little valleys among the foothills to spend the summer and rear their young.

The unmated birds remain on the hilltops and in the rough places. These unmated birds are always very wild and flush at a great distance in advance of the hunter. They flit down the steep hill sides and settle in the thickest cover, thus becoming secure from all harm, as it is next to impossible to pursue them in such places.

On the other hand, the mated birds become very tame when not molested, and can be seen along the road sides, or wherever proper cover is near. They often build their nests in old straw sheds or hay barns, and I have also found them nesting in the gardens near dwellings, where they become almost as gentle as the domestic fowl. These mated birds seem to realize that the nearer they locate to some farm house the more protection they will receive. On the lawns surrounding the country residence of the late Alvinza Hayward, near San Mateo, about twenty miles south of San Francisco, there can be seen, most any afternoon, upward of 1,000 wild valley quail as they come out from the shrubbery surrounding the premises to be fed by the gardener. In Golden Gate Park, in the Presidio, and in all the cemeteries in the city of San Francisco can be seen thousands of wild valley quail. It is needless to say that these birds are not disturbed in these places, and in the early morning and evening their calls can be heard in every direction. It is, indeed, a pretty sight to see them as they run along the paths and across the lawns, and to realize that these are wild—absolutely wild quail!

Under the State law the open season begins October 15 and continues until February 15 of the following year (some counties in the State having a shorter season). In order to thoroughly enjoy the sport the hunter should not be too heavily clad. He should wear light but strong shooting clothes, and heavy hunting shoes with large nails in their bottoms, as the quail will lead him over many a steep hill. He should use a 12 or 16 gauge gun and shells loaded with No. 8 or 9 shot. Thus equipped, with a good dog and genial companion he is ready for the sport.

He who has not previously had experience with the valley quail will be surprised at his gameness and at the many tricks he has up his sleeve to mislead both hunter and dog. The birds having flushed and flown a short distance to good cover, alight and run a little distance when they scatter and "stick." The hunters come up and the dogs are working nicely and finally come to a point. Up walks Mr. Novice to flush the bird at point, when out from under his feet flushes another quail and with a great whirr of wings is off like a blue streak. *Bang-bang*

—never touched him! Mr. Novice, reloading, turns to explain "why," when up goes another with the same result as before—not a feather.

"That first bird I shot behind, and that last one turned just as I pulled the trigger. But I will get the next one all right!"

"Mark!" calls his companion, and—"I believe I am rattled" exclaims the novice, "for I shot right through the tip of that big green bush and not within six feet of that bird." With a determined look on his countenance and with jaws firmly set he begins to climb the steep hill to where the dogs are again pointing. A quail flushes within three feet of and behind him; he quickly turns, half falls, loses his hat and scores a double miss.

"This beats the Dutch. I have done some shooting before—but nothing to equal this. Here am I, with the reputation of being a crack shot and I can't hit one of those little blue devils to save my soul!"

But being a true sportsman he can't help admire the gameness of the little sprites and enjoy the misses fully as well as the kills, if not more so.

He proceeds, now more fully determined than ever to learn how to drop some of those "little blue devils," and the better he becomes acquainted with valley quails' gameness and cunning the better he likes his company. He will lose no opportunity to be with him in the hills, not caring so much for the great bag he may be able to take as for the opportunity offered by this little bird to test his every good quality of marksmanship and sportsmanship, and to try out the metal of his dog. Therefore he returns from the field—it may be with only a few birds—but fully satisfied that he has been well repaid for his day's hard work. As he reviews the incidents of the day around that evening's camp fire you will invariably find him enthusiastic and loud in his praise of this, California's gamest bird; and the years will find him growing more and more devoted to its fascinating pursuit. For here is where the true measure of a quail shooter's skill is taken, and nothing so stimulates a true sportsman's interest as being pitted against a quarry whose cunning intelligence oft puts his own favorite steel to shame.

A WINTER OUTING IN ARIZONA.

By J. C. Brodie.

THE October sun was dropping behind the pine forests of the Mogollon Mountains. The whistle of the sawmill for the closing of of the day's work had blown and I heard the chaffing remarks of the employees of the mill company as they filed past the office window on their way to the cookhouse for the evening meal. Mechanically I picked up my pencil and added the long columns of the day's lumber tallies. My position as bookkeeper was becoming irksome on account of the confinement.

The clink of spurs sounded on the floor of the adjoining storeroom. Two men entered and bought a small stock of cigarette papers and tobacco. To my query, "Which way?" they informed me they were going to the White Mountains, 200 miles southeast, to spend the winter hunting. Their "pack outfit" of two saddle ponies and two pack ponies stood at the door. Listlessly I watched them mount and drive their beasts to a grassy plot a few yards away, where one of them threw off the packs and hobbled the horses out to graze, while the other built a fire to prepare the evening meal. I turned and walked to the cook-shack for supper, which important function being over, I sauntered down to interview the strangers, finding them each sitting on a log of wood, smoking the ubiquitous cigarette.

After the usual salutations, one of them rolled one for me and I joined them. Our conversation was of the woods and mountains and I learned one of the travelers was from Montana and the other from Idaho. Both were young men, under thirty, six feet tall and with the bronzed complexions that the brilliant sunlight of the Southwest only can give. The thought struck me, why should I not go with them, and my query if I might brought the instant response: "Glad to have ye, partner, if ye want to go 'long."

Our arrangements were quickly made, and resigning my situation, I was soon equipped with pack outfit. The next day found us riding along a lonely mountain trail, through the vast pine forests that cover the northern part of Arizona, bringing up at a lonely sheep camp after three days' travel. The entire force of a dozen men were busily engaged in "dipping" the sheep, preparatory to driving them off down these high mountains to the winter range in the foothills, for in the short but severe winter of the high altitudes of the Southwest snow falls to a depth of several feet and the thermometer often to zero. The foreman told us that his was one of the largest "sheep outfits" in the country and ranges 60,000 sheep.

The nipping frosts of late October reminded us that winter was near, and bidding adieu to the hospitable sheep camp, we took the trail for the main divide of the Mogollon Range. On arriving at the summit we caught our first view of the White Mountains, still over a hundred miles away. This range, seventy-five miles long, embraces the whole southeast sky line, its sharp, jagged peaks, white with snow, shading off to the deep green of the spruce and pine forests of their lower slopes. We had to reach them ere the first winter storms, which now might come at any time, and so, after five days' hard travel through the wilderness, we were climbing a trail around Ord Peak (12,000 feet elevation), one of the highest of the White Mountain range. Higher and higher the trail ascended and presently we were out of the pines and amid a dense forest of tall mountain spruce. We pitched our camp on the southern slope of Ord Peak in a little glade, where the snow was six inches deep and my pocket aneroid showed an elevation of 8,800 feet.

Darkness quickly follows the November twilight in these regions. In the rarified air the stars shone out with great brilliancy and a white glow in the east presaged the rising moon. Not a sound was to be heard as we smoked our pipes around the camp-fire. Few, indeed, are the hardy trappers and hunters that penetrate these wilds, a hundred miles from the nearest white settlements.

Just about moonrise we were startled by a chorus of yelps and howls. A pack of wolves, abroad in the forest in search of their prey,

had evidently been surprised at the sight of our camp-fire. Coyotes we knew them to be, by their shrill yelps. There must have been a hundred of them. We could see them by the firelight, skulking shadows gliding among the spruce. Then again was stillness, broken shortly by the snort of a buck deer as he suddenly caught sight of our fire, but we caught no glimpse of him as he silently stole away. Presently we heard a deep, long-drawn howl, answered by another and another, echoing down the gorges and defiles of the mountain; instinctively we grasped our rifles, for these were the big gray wolves, ferocious animals, quite different from the skulking coyotes.

Throwing a last few logs of wood on the campfire, we turned in, to be wakened at daylight by the gobbling of wild turkeys. Quickly arising, we hurried in the direction of the sounds, finding a flock of about forty turkeys flying down from their roost in a tall pine. The reports of our guns rang out almost together and two fine gobblers fell. The remainder flew to the ground, alighted, running, and were lost to view in the underbrush. It was no use to pursue them, for these wild birds can run almost as fast as a horse. At breakfast we appeased our appetites on fried turkey and then sallied out in search of bigger game. In the freshly fallen snow were trails of many deer, wolves, turkeys and grouse. Treading softly, our buckskin moccasins made no sound. The faint noise of a breaking twig came down the wind from a thicket of scrub oak a hundred yards ahead and a monster blacktail buck broke cover, followed by a dozen smaller deer, whirling up in their midst a cloud of snow. A lightning movement of the rifle to my shoulder, the glint of the front sight on the shoulder, and over went the big fellow with a ball through the forequarters, while my companion bowled over another.

All fresh trails were leading down the mountains. "The game is going down out of the snow and we must follow," said my companion, and suiting the action to the word we were quickly in our saddles, and after a fifteen-mile pack through a very rough country, pitched camp in a small cañon, three thousand feet lower. Here we were out of the snow, and game and grass being plentiful, we here decided to establish our winter camp, having fine weather for a few days. However, early in December we were caught in a heavy snowstorm. Snow fell in sheets to a depth of two and a half feet, and when the storm abated the weather became zero cold. Our meager supply of flour and bacon ran entirely out a week later and we were reduced to a diet of venison and salt. For almost a month we had fried venison for breakfast, stewed venison for lunch, and broiled venison for dinner. On account of the deep snow our horses fared badly. We were still seventy miles from Fort Apache, the nearest white settlement, and there was nothing to do but to wait until the snow melted sufficiently for us to distinguish the trails leading thereto.

About the middle of January we broke camp, and a week's travel with our jaded horses down the mountains and across the foothills brought us to the fort, where we were cordially received by the officers and privates of the Third United States Cavalry, stationed at this post. Here we received letters from home and eagerly read newspapers a month old. Needless to say we made a radical change from our mountain diet to the best the fort afforded.

The weather was very mild at the fort and the soldiers informed us that no snow had fallen during the terriffic storm we had experienced high up in the mountains, they having had only a heavy rain. A few days spent pleasantly at Fort Apache and we were again off for the mountains, with a fresh supply of provisions, in search of more adventures.

GOOSE AND DUCK HUNTING IN THE SAN JOAQUIN.

By Chas. E. Haas.

DUCK hunting in the San Joaquin Valley, owing to the peculiar geography of this region, is very unlike that of Suisun or of any of our Southern sloughs. From Modesto to the Tehachapi the country is level and almost unbroken by streams and gulches. This flatness is only relieved by so-called "hog wallows" or mounds, small hillocks resembling those of the Indian burial places of the Mississippi Valley and elsewhere. In the winter time these mounds enclose ponds of water, so that while in the heart of summer the whole seems a great clay desert, yet in the winter season the water-birds have ample opportunity to find a resting place on their Southern tour, and the ingenuity of the sportsman must be equaled by a knowledge of the country and his skill in approaching "hog wallows."

Such ponds form themselves late in the season. At the beginning of the winter the sportsman must content himself with hunting along small streams, formed in the almost level fields by scattered artesian wells, or by following the San Joaquin River or the various irrigation canals. If he is a novice the probability is that, although he be a splendid marksman, his "luck" will be meager. The little rivulets that are formed by artesian wells are usually no more than ten to fifteen feet across, and run to a distance of about one or two miles before sinking, with now and then a "mallard hole" of considerable dimensions. In these ponds the careful hunter will often be able to scare up a lone mallard hen or perchance a mallard drake and duck or two. These "mallard sloughs" call for the greatest skill in pursuing game.

The best time to hunt is on a moonlight night when there is a heavy fog—and the fog will usually accommodate the sportsman here in winter. The best method is to intrench oneself up to the armpits, in a hole dug near the water behind some "hog wallow" near the turn of the slough. Both ducks and geese will follow the water in preference to getting lost in the fog, and will usually slacken their speed of flight at a turn and fly low, perhaps even alighting. A good dog that will retrieve his goose and lie quiet is indispensable, for when the game is plentiful it will not profit the sportsman to leave the pit. Geese seem to completely lose their senses upon a foggy night and often return along the water in an attempt to find their way, flying close to the earth, especially the white goose; honkers and gray geese are a little more wary.

When a sportsman starts upon his pursuit in the early dawn he must follow another method. There is then no longer a necessity of lying still in a goose pit; geese in this valley can only be successfully hunted at night. Nor is there any advantage in lying in wait for ducks, for unless the less wary wigeon are plentiful the hunter would remain in his pit a long while without a shot. His method then must be to go back

of the stream about five hundred yards, and approach it at right angles, following as close as possible in the hollows formed by the "hog wallows," for he will then cover his approach by the hillocks. When nearing the stream it is often necessary to crawl on hands and knees, or even on the stomach, dragging the gun noiselessly behind. When within gunshot of the stream, arise quickly, drawing on the game, if there be any, just as it arises above the water. One can usually "spot" the whereabouts of a flock of ducks as it settles from flight, but as the country is all unbroken table land, and there is probably nothing to aid the memory, this requires practice. After he has shot at his game the experienced hunter immediately withdraws from the water and approaches it again at right angles, never, as the novice invariably will, following the course of the stream near the water's edge.

Another method often employed by pot-hunters is that of driving a trained steer or horse along the water's edge and shooting from behind him. This method is usually productive of good results but can scarcely be said to be legitimate sportsmanship. It is a method often pursued by those whose desire for game exceeds that of the lawful "limit."

Decoys are rarely employed, as the levelness of the ground does not admit of a hiding place for the huntsman and there are no tules for covering. Furthermore, the water does not form ponds sufficiently large enough to make them of much value until the time of the winter when the game law comes into effect.

A San Joaquin Valley duck hunt is something that still smacks of pioneer days. Three or four sportsmen, armed with permits to hunt upon the large cattle ranches that comprise this valley, such, for instance, as the Miller and Lux, that contains thousands upon thousands of acres and extends over many miles, will procure a large "farmer's" wagon, and store it with provisions for a week's outing, with plenty of bedding and pitch-pine boards for fuel—for they will find nothing to burn upon these barren plains—and hay and grain for the horses. They will start early in the afternoon, with intentions of reaching, say, the "Monte," a distant cottonwood grove, before nightfall. They will reach Kentucky wells slightly after dark, pitch a small tent to be used as a protection from the fog for the few hours toward morning that they may have left for sleep, and repair with a short shovel, pump-guns, dogs and sufficient shells, to the water's edge. When all is ready, the sharp bark of the smokeless powder will announce their chances in "getting a shot," and a later hour will prove their success. The early dawn finds them up again, pursuing a method heretofore announced. The next night will find them at the Tennessee or Half Moon wells, the next at the White House, thence along San Joaquin River and back to Madera. In following this course the sportsman must be acquainted with the situation of cattle-gates leading from one quarter-section to another, for he will have no county road that he may follow. The ease of traveling will depend upon a thorough knowledge of the situation of such exits and entrances, for wire-clippers are strictly forbidden by law and anyone using them is liable to get into trouble with the authorities of the law, or with the much-feared "buckaroon" or cowboy of the range.

The sportsman who hunts in this country must be no tenderfoot. He must be willing to sleep in the fog on the wet ground, be prepared with rubber boots and raincoat, and be willing to endure sore knees from crawling after his game. He must know the habits of the gray, white and honker geese. He must be able to tell by their flight, wigeon, mallard, teal, spoonbill, wood duck, butterball, fish duck, cinnamon duck and canvasback; other varieties of duck are scarce here. He must not be misled by curlew or by a desire to shoot plover. In short, he must know the science of hunting and must work hard for his game if he hopes to be successful.

[Under ordinary circumstances we should have sharply declined the publication of the preceding article for reasons at once apparent to every law-abiding, decent sportsman. The methods of night hunting so graphically described therein are at once unsportsmanlike and illegal, the law (see section 626m, general State game law) expressly forbidding the killing of any birds between one-half hour after sundown and one-half hour before sunrise of the day following. That the author—who is evidently a man of intelligence and more or less culture—should be ignorant of this prohibition is not thinkable for a moment, and his communication is therefore all the more reprehensible and inexcusable. We are publishing the article solely in the hope that the attention of the evidently very lax authorities in the San Joaquin Valley may be effectively called to this unlawful practice, and that they may be incited thereby to a fuller performance of their duties. And we sincerely trust that the moral of this may not be lost upon the author, himself, whom we trust may be induced to repent of the error of his ways and hereafter deport himself as a decent, law-abiding and honorable sportsman should.—EDITOR.]

Waldon Fawcett, Photo.

A RAPID-FIRING GUN WHICH NOBODY CRITICISES.

Waldon Fawcett, Photo.

THE PLAY WHICH KEEPS JACK FROM BEING A DULL BOY.

SPORT IN AFRICA.

By Elmer E. Davis.

PART V.

HAVING some time at our disposal and desiring to hunt where the grass was not so tall, Mr. Snowden and myself packed up a camp outfit, got a car and were off with our porters to the Njoro forest and plain. Unloading our outfit at the station the car was run on into Nekura, and after the porters had pitched the tent we sat around telling good old American yarns to Mr. Scott, who was road inspector for that division.

He was on his way to Ndemo, six miles farther on, when he saw our camp and stopped for dinner. Mr. Scott was a fair hand at talking, with a decided bias toward things of English origin, but we finally induced him to say that American railroads were better than those in Africa.

The conversation then turned on hunting, and he told us where a band of "impala" could be found, and said he had tried to kill a buck several times but failed, as they were too cunning to be caught napping.

I made up my mind to have a try at the impala, so started for the timber the next morning with two porters. The impala—or "pallah bucks," as they are generally called—are very active and graceful creatures. They are beautifully built, and from a dead stand can leap from twenty-five to thirty-five feet with seeming ease; the bucks have long, slender horns which curve in the prettiest manner imaginable. Their color is red on the back, running to white underneath; they travel in bands of from four to forty, and in some cases more. Usually one or two bucks are with each band, and in rare cases three or four may be seen together. The does, although not so handsome as the bucks, are possessed of remarkable agility, and when alarmed or suspicious will retire from the vicinity of trouble in incredibly short order, bounding into the air and performing some of the most astonishing gymnastic feats. That hunter who can shoot one while doing

MY GUNBEARER'S DOMICILE.

its circus stunt must certainly be a good shot, but few will care to try, as the actions are so ludicrous a hunter will enjoy a hearty laugh unless he is meat hungry. It has been my experience to find these interesting animals always in the vicinity of other game, but whether it is characteristic of them or not I am hardly competent to say; it may be possible that several different species of animals find the grass in certain localities to their common liking, and so congregate for obvious reasons. The impala when once satisfied with a feeding place will return to the vicinity day after day unless closely hunted.

Mr. Scott had drawn a sketch of the place where the beasts would likely be found, so I knew exactly where to go. We struck the Njoro River (a small stream, barely ten feet wide) two miles from camp, and crossing kept along its bank for some distance. There were numerous tracks of beasts in the soft earth at different places where the bank was not too steep for them to descend, and at one place lion spoor made the night before was very plentiful; farther on a rhinoceros had been down to drink, and he must have been in a bad temper for the brush was broken down for some distance, and there were deep furrows in the bank made by his horn. He had chosen the steepest part of

the bank to climb up, and the way dirt and stones had been scratched out in his efforts to ascend was a revelation to any one that thinks these clumsy beasts are unable to climb hills.

Monga said this fellow was "*engongwa indova kitchwa*" (sick in his head, or crazy) and would be a bad fellow to encounter. Old male rhinos will often get this way, and will attack anything from a dead tree to a railroad train; I have seen a steel plate which was partly ripped from the bumper block on the front of an English locomotive by the horn of a rhino. I could tell a number of ridiculous and curious stories of this animal, which the public would never believe, so will say nothing more about it here. As they are great travelers I had no fear of this particular one being in the vicinity, so did not use extra precautions to avoid him.

We climbed a small hill to look around and got a splendid view. To the right was a level piece of ground about a mile across, covered with good grass, on which three bands of hartbeest, two doe waterbuck and about twenty-five zebra were seen feeding. Dense timber and brush surrounded this place on three sides, with the river on the other. Straight ahead and on my side of the river was fine open timber, with some brush, but it was in clumps, with good broad paths and clear spots to walk in. It was here I expected to find the impala. On the left was the plain and numerous mimosa groves.

It was now time to be careful, so we went down near the water in order to be out of sight. The wind was blowing from the desired direction, and I anticipated an easy time of it; upon reaching the place where it appeared best to ascend the bank I left the porters, and reaching the level hid behind a bush to take a look around. There were few bushes near me, and a good view was obtained of an open piece of ground containing about eighty acres, upon which a few zebra were feeding. This did not interest me, and looking more closely I saw, about four hundred yards away, near the edge of the timber, several red does which I knew to be impala; scattered through the trees could also be seen the gray coats of several doe waterbucks. No buck appeared and a careful look through the field glasses brought no better result. I knew they were there. however, and crawled carefully from bush to bush in their direction. Several waterbuck saw me, but seemed to know intuitively that I was not after them, and walked leisurely away out of range.

For over an hour I crawled over ground that seemed to produce an abundance of thorns in spots where my hands and knees would land, but could see no buck. Suddenly an impala doe ran for the opening, followed by the whole bunch. This move surprised me, and while wondering what the cause of it was I discovered the wind had changed into the opposite direction. Still hoping to get a shot I worked carefully to the edge of the timber and from there saw, out in the middle of the open space, about thirty impala does and two fine bucks.

Not wishing to frighten them, as they were too far out for a sure shot, I did not shoot, but stepped into view. The does immediately began their antics, and so fast did they leap and squirm that it looked like an immense stew pan of animals boiling furiously. Becoming tired of this they stood and looked at me, seeming to know they were safe out there.

I left them alone, knowing it was useless to bother with them if they knew they were being hunted, and returning to where the porters awaited me we continued along the watercourse for some distance, then struck up into the timber, hoping to find a buck of some kind. The undergrowth had been burned for quite a strip along here, and a new growth of grass several inches long formed a soft carpet to walk on. We were quietly stepping from one bush to another when I discovered several young waterbuck

ONE DAY'S KILL OF ORABI.

playing about a thicket, and knew some old ones were near.

I left the porters and crawled around to one side where five old does could be seen lying down, but no buck appeared, and after waiting some time I picked up a small stone which I threw toward them; they at once leaped up and ran around the thicket. As I stepped out of the bush Monga came running to me. He was so excited he could hardly talk, but finally managed to tell me that soon after I left a big buck had come from around the thicket on the opposite side from me and walked straight for the bush behind which they were concealed; he seemed suspicious and sniffed the air, but walked to within ten yards of them, and when the does bolted he, too, ran off.

Monga said the horns were "*marufa sana*" (very long), and insisted that I follow immediately; but I was too well acquainted with them to do that, for a waterbuck will generally run four or five hundred yards and get behind some bushes and watch his track to see if any one is following. So I took, instead, a roundabout course in the hope of coming up behind him, and it was well I did so, for we found him, as expected, standing behind some brush as if waiting for some one. The timber being quite open for some distance I was unable to approach any nearer to him, and so tried a long shot; he humped up his back and shook his head as the bullet struck, but after staggering a few steps recovered and followed the does. I hardly expected they would stop very near again, but we followed, keeping pretty well to one side in order to get ahead of them should they stop. Passing the place where they first appeared we followed a well-beaten path farther into the timber.

As they were found in the narrow strip where the undergrowth had been burned I had no doubt they would stay in it until driven out, so kept my eyes open as we walked along and caught sight of one or two does several times but was unable to get a head of them. We had walked some distance when a sharp grunt sounded close by and a couple of Wart Hogs ran out from behind a bush and hurried away at full speed; my rifle was up in an instant and the first shot brought one down, the other disappearing among the trees. Monga ran ahead and

THE WORT HOG WHICH CHARGED.

was stooping over the pig when it jumped up full of fight and made a dig for his legs but he—wise fellow—did not wait for orders to get out of the way but took to his heels lustily shouting that the pig was not dead and for me to shoot! While approaching I had set my pocket kodak, and now snapped the shutter, hoping to get pursuer and pursued in one exposure, but Monga had so far out-distanced the pig that he was not caught on the plate. Laying the kodak on the ground I picked up my rifle and shot the pig dead. All this happened in a very short time, but had not the first shot broken one of the pig's front legs I have no doubt he would have caught Monga and done some harm before being killed.

The other porter complimented Monga on his ability as a racer but this was taken as a good joke; these fellows have a strong sense of humor and love to catch each other in tight places, but unlike white men they seldom get angry if the joke turns on themselves. As the pig would be a good load for the porters I left them to bring it in and returned to camp.

ENGINEERS' CAMP.

On the way I stopped where a large camp had been built by the first English engineers on the railroad survey. Several large grass houses were still standing and in very good condition. Numerous vegetables were growing wild where the garden had been but none of them were mature except the tomatoes of which there was a large quantity.

I arrived at camp late in the afternoon and found Mr. Snowden had returned from the plain with a fine set of hartbeest horns. We were quite tired, but after going to bed could not sleep on account of hyenas howling around the tent. The fresh meat had attracted them and they were so bold as to try and steal it from the tent, where it was stacked in one corner. Mr. Snowden declared he would stand it no longer, and taking one of the blanket straps fastened it to a good-sized bone. The stake of firewood and the ax were picked up, and with these out he went. I heard him pounding for awhile and when he returned a grin of satisfaction was all over his face. He had driven the stake into the ground on a little mound not twenty feet from the tent and fastened the bone to it with the strap.

By lying down on the ground and lifting the tent wall the stake could be seen against the sky. He took my shotgun, poked his head out under the tent and awaited developments. The bombardment soon began and under its soothing influence I fell asleep. Upon awakening the next morning I found Snowden fast asleep with the gun still in his hands. Going out to see what he had killed I found the ground all plowed up around the stake but no dead hyenas; the bone was still there, picked as clean as only a hyena could pick it. The treatment proved effective, however, for although the hyenas visited us every night we were there they made very little noise.

The previous day's failure made me more determined than ever to secure one of the impala, and seven o'clock found two porters and myself on the way to the woods. I had made up my mind that the wind would not fool me this time, for as it blows here one day it will blow the next and keep it up for several weeks in the same manner, generally changing each day as the sun gets up high enough to heat it. What causes this I am unable to say, but the peculiarity is very noticeable in this district.

Leaving the watercourse we made a detour in order to come up on the timber side of the place where we expected the impala to be feeding. After waiting some time for the wind to change we advanced rapidly until within half a mile of the desired point. Here the porters fell behind and I dodged slowly from one bush to another, expecting every moment to see the red coat of the impala; but none materialized and I sat down under a bush to wait for something to turn up. The first live thing that appeared was a young waterbuck which arose not twenty feet away; he stretched, twisted his body around a little, then laid down again in the grass. Not wishing to disturb them—for I knew there must be more around the bushes

MR. SNOWDEN'S HARTEBEEST.

which would, if alarmed, run through the timber and frighten the impala—I retraced my steps and went farther around, but could find no sign of the desired beasts and was very much disappointed. However, I started to walk back and forth through the woods in the hope of finding them, and was quietly moving about the brush when I stepped out in full view of two bucks and two does about seventy-five yards away. One buck was standing up and I killed him the first shot, the other disappeared, followed by a bullet which did not hit him.

To say that I was pleased would hardly express my feelings as I looked at this beautiful beast, for in that forest of numerous bands of different species of antelope it is very hard to get a good impala buck, some

white men having been in that country several years without securing one. The principal points in hunting them are a knowledge of their habits and extreme quietness in their pursuit.

I left the porters to take care of the buck and returned to where the waterbuck had been seen, in the hope of finding a good male, but they had run away. After wandering around for some time I emerged from the timber on the side where the mimosa groves were. As I stepped out, several gray does appeared, running from the mimosa to the timber. Dodging behind a bush, I waited, expecting a male waterbuck to appear, and was not disappointed, for one came with a rush, running very low to the ground. My bullet plowed up the dirt under him and was a clean miss. I again entered the timber and endeavored to locate the buck, but without success. For such a short time I never, before or since, saw so many does. They were every place and kept the brush cracking pretty lively.

Becoming tired of this "peek-a-boo" sport, I came out on the plain and started for camp. This part of the plain is very uneven, the surface being broken by numerous low ridges and shallow swales. From one of these I put up a "Grant gazelle" which had one front leg broken. He had a fine set of horns and I followed him slowly, hoping to get near enough for a shot, but he seemed to know about how far I could shoot straight and kept a few yards beyond that distance. This was aggravating, and as he disappeared in a low place I tried rushing ahead. The first time I got a shot, but missed; the next time he doubled back in the swale and when I ran forward he hobbled out three hundred yards back in the other direction. Again he entered a swale and this time I doubled and felt sure of him, but the cunning fellow had anticipated this and kept straight ahead and was now farther off than ever. I tried to head him from the timber but he beat me and I trudged off to camp feeling that I had been fairly outwitted by a three-legged gazelle.

The scarcity of males among the waterbucks was, as I afterward learned, due to the fact that six had been killed by a party of hunters three months before, in that piece of timber. Mr. Snowden had been in the woods looking for bushbuck all forenoon, but did not see any. He secured, however, a Thompson gazelle, on his way back to camp.

The next day I spent in cleaning the head of my pallah buck, as I could not trust it to the porters, who are too careless. As I sat working, six Masai warriors came up, and after the usual greeting (spitting on their hands and shaking mine), sat down to watch me work. The keen edge of my knife was a source of wonder to them, and after talking among themselves awhile they made me understand it would please them very much to have their spears as sharp as my knife. Having a file, I brought it out and sharpened one of their spears. They begged so hard to have the rest fixed that I put a porter to work and soon had the job done. They were very grateful and every blamed one of them insisted on spitting on me, which is a very high mark of respect among them, although I did not appreciate it very much, and was glad when they left.

THE FELLOWS WHO SPAT ON ME.

THE THREE FISHERS.

(With Apologies to Somebody.)

THREE fishers they were who lived out in the West,
In the golden West where the sun goes down.
They had just escaped from the parental nest
With its wealth of debris and lack of down—
For fishers must fish if they would eat,
And minnows and shiners are passing sweet
For one's breakfast in the morning.

Three slender limbs are there which o'er- hang the brook.
The coy babbling brook where the fishlets play;
And thitherward these eager fisherlings took
With cluttering rattle their eager way,
And, perched there, motionless all three sat,
Each one with sweet visions of choice extra fat
And luscious young fry that morning.

Three fishers hiked home when the sun went down—
And it's safe to bet that their "tums" were full!
For they did no fooling with hackles brown
Or other conceits of silk, feathers and wool;
Yet each one caught all his fish on the fly—
That's straight! Did you e'er know a fisher to lie
When he told of his catch in the morning?

WESTERN FIELD.

The Sportsman's Magazine of the West.

OFFICIAL ORGAN

OLYMPIC ATHLETIC CLUB AND THE CALIFORNIA FISH AND GAME PROTECTIVE ASSOCIATIONS.

PUBLISHED MONTHLY BY

THE WESTERN FIELD CO., (Incorporated)

SAN FRANCISCO, CAL.

Offices; 4 Sutter Street, corner Sansome Street. Telephone, Main 1262.

Registered at the San Francisco Postoffice as Second-Class Matter.

FRANK H. MAYER, - - - - Managing Editor

Matter for publication should be addressed "WESTERN FIELD," 4 Sutter Street, San Francisco, Cal., and not to individuals connected with the magazine. All copy for new advertisements, changes or discontinuances, must be in hand not later than the 10th of the month preceding date of issue, in order to insure attention.

A GOOD EXAMPLE.

THE Empire Gun Club of this city, one of the most influential of Pacific Coast sportsmen's associations, has recently set a good example for contemporary clubs by establishing on their extensive preserves a closed season on snipe from May 1 to October 15 of each year, inclusive.

This commendable action marks sharply the advancement of the game protective principle among our most enlightened sportsmen, and is a very encouraging sign of the intelligent interest that is daily developing among all classes. It is likewise a magnificent rebuke to the weak-kneed solons at Sacramento who, intimidated by the threats and coercion of a few sectional game hogs, have hitherto shamefully indorsed by their legislative inaction the ruthless decimation of California's gamest marsh bird, the toothsome snipe.

It is to be hoped that the necessity for similar protection of this splendid bird will be borne in upon all preserve owners in this State; a similar prohibition on their parts will go far toward the securing, at the next legislative session, the introduction of a clause in our game law prohibiting the present indefensible massacre of snipe regardless of their breeding season, which disgraces our State.

The Empire Club's action also sharply refutes the widespread fallacy that preserve owners are the incarnation of selfishness and greed. Men who indignantly refuse to avail themselves of the license of a vicious law, and who voluntarily curtail their shooting privileges some five and a half months each year so that the supply of game be not exhausted, are hardly the selfish and rapacious element which the yellow journals and their true game hog constituencies would have the public believe them to be. It would be a revelation to this disgruntled crowd were the by-laws and constitutions of clubs like the Empire made public; for there incorporated would be found not only the most drastic provisions against game law violations, but actual restrictions, as well, against the sale of game; the curtailment of shooting hours and bag limits; and divers other regulations which their detractors would do well to observe.

WHO OWNS THE GAME?

AS A clincher to previous decisions of the Supreme Court that the game of a State belongs to the commonwealth, the Colorado law, which vests the ownership of the game in the State as "proprietor," has been sustained by the Court of Appeals. This decision is final and, as the case can not be carried higher, the law will stand.

This law provides that "no right, title, interest or property therein can be acquired or transferred, or possession thereof had or maintained except as herein expressly provided," and the specifications which follow should be incorporated in every game law in the United States. Most laws now in force simply throw the onus on the game protector, compelling him to not only furnish proof of violations but to prove the law itself in its application to the offense; they simply leave the interest of the State as at common law, making the game or fish public property and prescribing certain ambiguous prohibitions which only too often enables shyster lawyers to extricate their guilty clients from the difficulties they get themselves into. We recommend to prospective game law tinkers that they read this excellent Colorado law over very carefully and then, after due consideration of certain minor defects, enact its practical duplicate in entirety.

To Judge D. C. Beaman of Colorado, who is entitled to all credit for this excellent legislation, the country's thanks are due. He has been the instrument in decisively fixing the ownership of the game, and in protecting it in his State as it is nowhere else protected. Let California now emulate Colorado's example.

SAVE THE TROUT.

WITH the sole exception of the Great Lake (Mackinaw or "Namaycush") species no trout should be permitted to be sold in California. Our waters are already depleted to such an extent, by the unreasonable market demands upon them, that it is very easy to forecast the end of the entrancing sport which has and always will have such a charm for true sportsmen.

This should appeal most particularly to the very people who to-day are responsible for the presently alarming conditions—the market men and the residents in the trout-producing sections. For the market-man will tell you that his profits on trout are practically nothing owing to the small supply and the legal restrictions which hedge him about. And the ranchman, who catches a few hundred pounds of trout which he has to sell at nominal figures, is taking out of his own mouth the well-buttered bread which the summer-outer-fisherman would gladly put therein. He is killing the goose before the golden eggs are laid; for the pigeon he fain would pluck flies to better fishing grounds and takes his good money along with him. It is a safe and conservative estimate that for every dime realized by the sale of our mountain trout in the open market, ten dollars are spent by city fishermen who are attracted to the stream sections by the trout therein. And these dollars are left in the trout yielding districts purely. Does it pay, brother resident of the trout districts, to turn away the profitable outer's offering for a few cents hard earned in skinning the streams which should logically flow dollars into your coffers?

Of the thousands of men who to-day eat soft and soggy cold storage trout, at exorbitant figures, in our law-disregarding restaurants, what one is there that would not rather pay dollars in lieu of cents, for a trout of his own catching, cooked in its prime?

And the dealers who sell expensive and profit bringing tackle; the railroads and other common carriers who transport the expectant hordes; the hotels and ranches which accommodate these fish hunters—are they not all vitally concerned in the preservation of the finny attractions which draw so much money into their purses?

Let us have a trout non-sale clause incorporated in our law at the next session of the legislature. And while we are about it let us stop the sale of ducks and snipe as well.

THE MINOR CHORD.

WHILE we heartily agree with the old saying that "it is not all of fishing to fish," we contend that the actual catching of our finny victims makes up an almighty big part of the sport. If any one doubts this let him go, some pleasant Sunday, to any of the favorite coves along our beautiful bay and watch the thousands of patiently expectant anglers who find their account in "yanking" out the multivarious species of small fry which invest these glorious waters. From tugboats, launches, yachts, rowboats and craft of every kind you will see them casting the bread of their hopes upon the waters, and one has only to look at the gleam of satisfaction which irradiates their sun-peeled faces as some unusually big tom-cod or surf-perch comes wriggling out of the deep at their insistence, to realize that they are having a world of fun.

After all it is the good little things of life which we prize most. And where, in the world of good fishing, do the waters yield so bountifully as here in our own great harbor?

TO SPORTSMEN'S CLUBS.

WE HAVE a unique proposition to make to all gun, rifle, revolver and other sportsmen's clubs. We respectfully invite the correspondence of secretaries, to whom full details will be given. This is of great importance and should not be overlooked.

COUNTY ORDINANCES.

BY LEGISLATIVE enactment the various Boards of Supervisors have, in their respective counties, jurisdiction and power to provide, by ordinances not in conflict with the general laws of the State, for the protection of fish and game, and may shorten (but not extend) the open season for the taking and killing of fish and game within the dates fixed by the general State law.

The ordinances as published below are, so far as we can ascertain, correct; changes are, however, liable to occur from time to time, necessitated by new conditions, and we will make such corrections when they eventuate. If in any doubt, please address this office, and information will be gladly given. Where counties are not enumerated in the following list, it is to be understood that no departure from the general State law has been adopted.

El Dorado—Male deer, September 1 to November 1; tree squirrel, August 1 to October 1; trout in Lake Tahoe and Loon Lake, June 1 to November 1.

Fresno—Doves, August 15 to February 1; quail November 1 to February 1; male deer, September 1 to November 1.

Humboldt—Trout, May 1 to November 1; striped bass, closed until January 1, 1905; barnacle or black brant, October 1 to March 1; Wilson or jack snipe, September 1 to February 15; English or Mongolian pheasant and wild turkey, closed until January 1, 1906; ducks, limit of 25 per day; black sea brant, limit of 8 per day; miscellaneous bag of game birds, not to exceed 40 in number per day's shoot.

Kern—No game to be shipped out of county.

Kings—Doves, September 1 to February 15; quail, November 1 to February 15; deer, September 1 to November 1; black bass, closed for two years; limit on ducks, 25 per day.

Lake—Male deer, July 15 to September 15.

Los Angeles—Doves, August 1 to September 1; male deer, July 15 to September 15; trout, May 1 to August 1; gulls, terns, meadow larks, robins, flickers, brewers blackbird, road runners, orioles, mocking birds, the water ousel, the barn owl and other species of beneficial birds are protected at all times in Los Angeles County. The putting out of poison mixed with or dissolved in water for the purpose of poisoning birds or animals of any sort is forbidden.

Madera—Doves, August 15 to February 1; valley quail, November 1 to February 1; male deer, September 1 to November 1; ducks, limit 25 per day; duck selling prohibited; trout limit, 10 pounds per day, size limit, 6 inches; black bass, closed for two years.

Marin—Male deer, July 15 to September 15; doves, August 1 to February 15; quail, October 15 to January 15; tree squirrel, July 1 to February 1. Shooting on county roads prohibited. Killing of larks and other song birds prohibited.

Mendocino—Male deer, July 15 to October 1.

Merced—Doves, August 15 to February 15.

Monterey—Deer, July 15 to October 1. No hounds. Sea gulls and blue cranes prohibited.

Napa—Deer, July 15 to September 15.

Orange—Doves, August 1 to February 15.

Riverside—Male deer, August 1 to September 15; trout, May 1 to July 1.

San Benito—Male deer, August 1 to October 1.

San Bernardino—Trout, June 1 to November 1; tree squirrel, limit 5 in one day; doves, August 1 to October 1; wild duck, trout or dove selling prohibited.

San Luis Obispo—Deer, July 15 to September 15.

San Mateo—Cottontail and bush rabbit, July 1 to February 1; rail, October 15 to November 16. Rail hunting with boats one hour before or after high tide prohibited. Male deer, August 1 to October 1; trout, limit 100 per day; tree or pine squirrel, prohibited. Song birds protected perpetually.

Santa Barbara—Male deer, July 15 to September 15.

Santa Clara—Male deer, July 15 to October 1.

Santa Cruz—Male deer, August 1 to October 1. All wild birds (other than those recognized as game birds in general law), except hawks, owls, bluejays, shrikes, English sparrows and housefinches, are perpetually protected, as are likewise all species of tree squirrel. Black bass can not be caught before January 1, 1907. Trout limit in one day, 100.

Siskiyou—Deer, August 15 to October 15.

Sonoma—Male deer, July 15 to September 1.

Trinity—Male deer, September 15 to October 30.

Tulare—Trout limit, 10 pounds per day, 6-inch fish; black bass, closed for two years; roadrunner killing prohibited.

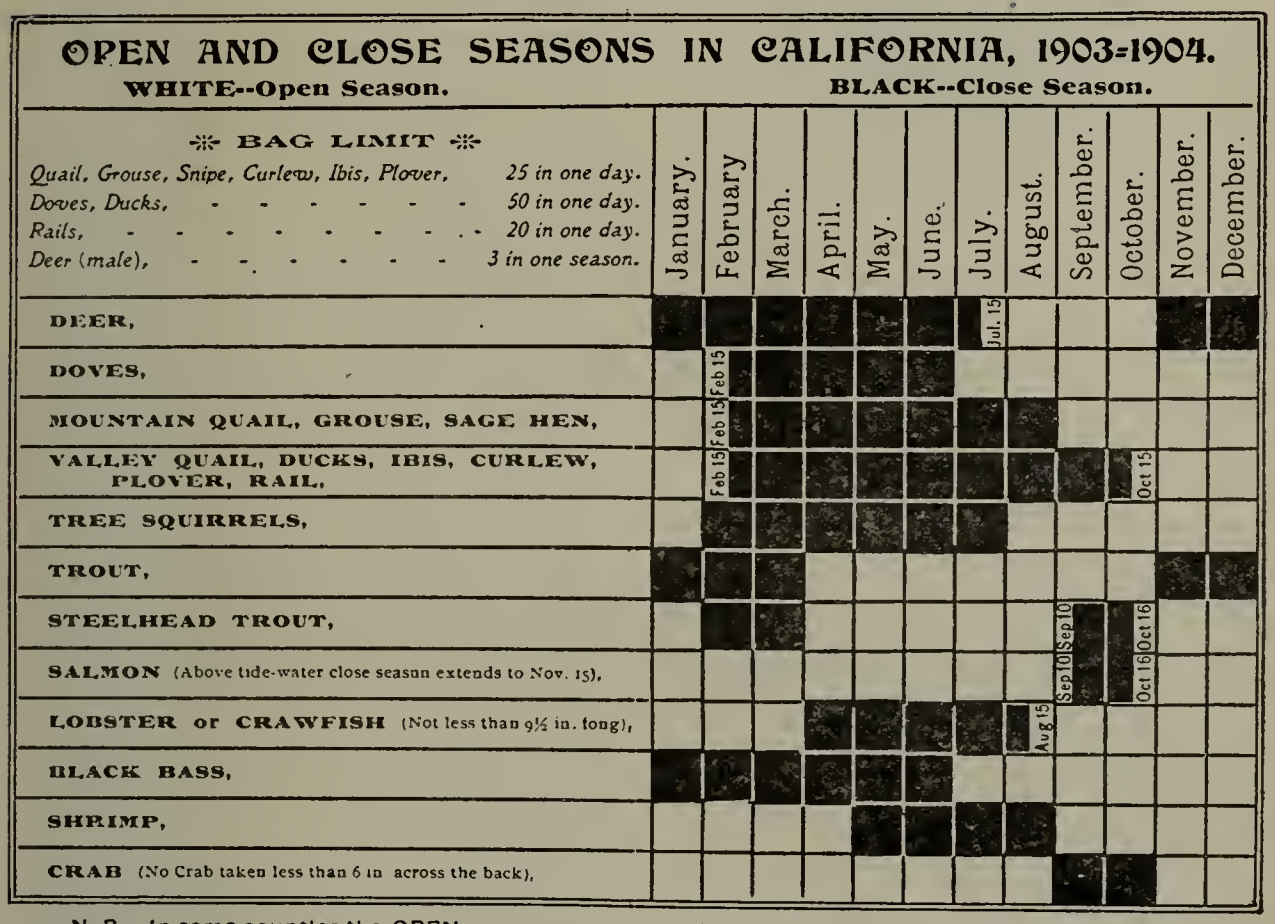
Tuolumne—Mountain quail, south of ranges 13, 14, 15 and 16 east, township 3 north, and west of townships 1 and 2 north and townsnip 1 south range, 7 east, October 15 to February 15.

Ventura—Trout, May 1 to November 1; male deer, August 15 to October 1.

Yolo—Doves, August 1 to February 1; quail, November 1 to January 1; deer, July 15 to September 15.

THE CALIFORNIA GAME LAWS IN BRIEF

(Compiled by Charles A. Vogelsang, Chief Deputy, State Board of Fish Commissioners.)



N. B.--In some counties the OPEN seasons are shorter
Write to County Clerk or District Attorney.

Fine for violation Game Laws, $25 to $500, and imprisonment.
Fine for violation Fish Laws, $20 to $500, and imprisonment.
Smallest fine for using explosives to take any fish, $250, and imprisonment.

WHAT IS ALWAYS UNLAWFUL

To Buy, Sell, Offer for Sale, Barter or Trade, at any Time, any Quail, Pheasant, Grouse, Sage Hen, Ibis, Plover, or any Deer Meat or Deer Skins.

To have in possession doe or fawn skins.
To take or kill, at any time, does, fawns, elk or antelope.
To take or kill pheasants or Bob-White quail.
To run deer with dogs during the close season.
To shoot half-hour before sunrise, or half-hour after sunset.
To trap game of any kind without having first procured written authority from the Board of Fish Commissioners.
To take or destroy nests or eggs of game birds.
To ship game in concealed packages, or without your name and address.
To buy or sell trout less than one-half pound in weight.
To take, at any time, sturgeon, or female crabs.
To take abalones less than fifteen inches in circumference.
To take trout or black bass, except with hook and line.
To take salmon, shad or striped bass with a net less than seven and one-half inch mesh.
To use a set net.
To take fish in any manner, within fifty feet of a fishway.
To take, buy, or sell striped bass less than three pounds in weight.
To shoot meadow larks.
To shoot on inclosed land without permission.

President.

H. T. Payne, San Francisco.

Vice-Presidents.

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Membership Committee.

W. W. Richards, San Francisco; J. Sub. Johnson, Visalia; A. R. Jones.

Membership Committee.

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Name and Location. Secretary. Address.

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Angels—Walter Tryon, Sec., Angels Camp, Cal.

Arroyo Grande—S. Clevenger, Sec., Arroyo Grande, Cal.

Auburn Fish and Game Club—E. A. Francis, Sec., Auburn, Cal.

Boulder Creek—J. H. Aran, Sec., Boulder Creek, Cal.

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Colusa—S. J. Gilmour, Sec., Colusa, Cal.

Covalo—H. W. Schutler, Sec., Covalo.

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Laytonville—J. G. Dill, Sec., Laytonville, Cal.

Lodi—Greer McDonald, Sec., Lodi, Cal.

Lompoc Game & Fish Protective Ass'n—W. R. Smith, Sec., Lompoc.

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Nevada City—Fred C. Brown, Nevada City, Cal.

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Santa Barbara—E. C. Tallant, Sec., Santa Barbara, Cal.

San Bernardino—F. C. Moore, Sec., San Bernardino, Cal.

Santa Clara County—R. S. Kooser, Sec., San Jose, Cal.

Santa Cruz—Mr. Miller, Sec., Santa Cruz.

San Diego—A. D. Jordan, Sec., San Diego, Cal.

Santa Maria—L. J. Morris, Sec., Santa Maria, Cal.

Santa Rosa—Miles Peerman, Sec., Santa Rosa, Cal.

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Selma—J. J. Vanderburg, Sec., Selma, Cal.

Siskiyou—W. A. Sharp, Sec., Sisson, Cal.

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Sacramento County—A. Hertzel, Sec., Sacramento, Cal.

Sonora—J. A. Van Harlingen, Sec., Sonora, Cal.

Stockton—R. L. Quisenberry, Sec., Stockton, Cal.

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Woodland—W. F. Huston, Sec., Woodland, Cal.

Yreka—F. E. Autenreith, Sec., Yreka, Cal.

GAME WARDEN EXPERIENCES.

BY WALTER R. WELCH,
Deputy Game Warden.

IN THE morning of the eleventh of July, 1903, I took the train for Ukiah to meet Field Deputy Fish and Game Commissioner A. F. Lea, our object being to make a trip through the counties of Sonoma and Mendocino, reports having reached the office of the State Board of Fish and Game Commissioners that violations of the deer law were being committed in that section, and that several camps had already been established, although the deer season did not open until July 15. We had been detailed for this work.

Upon my arrival at Ukiah I was met at the depot by Mr. Lea, and although I had never had the pleasure of meeting that gentleman before, I saw at a glance by his bright eye, quick movements, and general appearance that in him I had a companion on whom I could depend in any emergency. We retired to our rooms at the hotel, and after consultation decided that we would secure our team, stock of "grub," etc., and start early next morning for the mountains in the southwestern part of Mendocino County.

At sunrise next morning we were on the road. The day was hot and the roads dusty, and it was late in the afternoon before we arrived at "Ranchree Creek" and went into camp. Here we found several other camps and remained several days, but neither saw nor heard of any violations of the law. On the afternoon of the fourteenth of July deer hunting parties commenced to arrive, and in conversation with some of them we were told that we had "better look out and not kill any does or fawns, as Game Warden Lea and another deputy were in the hills, and that they were the kind of men that were looking after violators in earnest."

By dark that night at least twenty deer hunters, with as many dogs and horses, had assembled at "Ranchree Creek" to open the season next day; and by three o'clock next morning all were off for the hills. None of the parties killed any does or fawns, although several bucks were bagged. By noon, having been recognized by one of the parties and our identity having become known, we decided to move further south, so "pulled out" for the "Ledford Ranch," twenty-five miles south, where we had heard there were several camps of deer hunters.

On the morning of the sixteenth, at 4 A. M., after a breakfast of coffee, bacon and bread, we saddled our horses and shouldering our rifles started to cross a mountain to reach the foot of "Barkley Peak," where we had located several camps the night before. We calculated that we could make these camps and return to our own by noon, but after the hardest kind of a day's ride, through heavy brush and over steep hills, with nothing to eat, we at last found these camps all of which we found to be "clean," and got back to our camp at 9 P. M., tired and hungry I assure you.

On the morning of the eighteenth, at sunrise, we were off for Hopland, having decided to return to the office and report, afterward returning better prepared for such work as we were doing, as in our hasty departure on this trip neither of us had prepared for such rough work in the mountains, and our shoes and clothes were all but worn out. On our way out we found the tracks of two men in the dust along the road. From the nail-marks in the tracks, these men apparently wore hunting shoes, and we decided that there must be a hunting camp, in that locality somewhere, although we had heard no shooting or dogs. Mr. Lea suggested that I take the tracks and follow them up and see what I could find out, which I did.

I followed them up an old road in the bottom of a deep cañon about a mile and a half, where I found a camp with no one at home; investigation, however, produced evidence sufficient to convince me that a doe and fawn had been killed. I returned to the road where I had left Mr. Lea, and having hidden our team we returned to the camp and concealed ourselves in the brush to await the return of its occupants. We did not have to wait long before three men came into camp. Leaving Mr. Lea still hidden in the brush, I went into the camp and inquired if they were the occupants of the camp, and upon receiving an affirmative reply accused them of killing a doe and fawn and informed them that they were under arrest. At first they denied the charge, but when Mr. Lea came out of the brush carrying part of the fawn in his hand, and when I said to him "Go over there and look at that doe," which the men had skinned and concealed in the brush under a piece of canvas, they broke down and admitted their guilt. We took two of them that admitted the killing of the doe and fawn to Hopland, thirty miles distant, where they were fined $50 by Justice Armstrong.

While on this trip we passed through a most beautiful game country, situated in the southwestern part of Mendocino County and the northwestern part of Sonoma County. We saw many deer and quail, as well as other game, and camped on some fine trout streams.

On the morning of July 19 I left Mr. Lea at Ukiah, agreeing to meet him on Wednesday at Highland Springs, Lake County, from which point it was agreed we would continue our crusade against "doe punchers."

Early on the morning of July 23 we started from Highland Springs better prepared for our work. That day we drove as far as Upper Lake where we camped all night, and early next morning started over Elk Mountain for Paramour Soda Springs. The road over the mountain is very narrow and steep, and as we had quite a load on our wagon, consisting chiefly of hay and grain for our horses, I had to "hoof it" over the mountain while Mr. Lea punched up the broncos. It was late in the afternoon when we arrived at the springs, where we found several camping parties, so we remained there all night.

Early next morning we saddled our horses and started over the chemisal-covered hills of Lake County for Crabtree Springs. To a sportsman this is a beautiful ride of ten or twelve miles. We crossed the Rice Fork of Eel River, and took the trail—a blind and brushy one it is true, but nevertheless a trail. Deer tracks were to be seen everywhere. Mountain and valley quail and grouse were often flushed. We also jumped

A "CLEAN" CAMP.

many deer. Upon arrival at the springs we found a clean camp occupied by three gentlemen, and after a rest and a drink of soda, iron, sulphur and other mineral water—both hot and cold—we resumed our journey back to our camp, returning through the pine-clad hills west of the springs. Crabtree Springs, if developed and had a road built to them, would become famous as a health and pleasure resort.

Upon our return to camp we hooked up and pulled out for Rice Creek, where we found three camps, one of which we did not like the looks of very much, and upon being informed that the " boss " was out hunting we decided to conceal ourselves in the brush and watch his return, Mr. Lea watching one trail that led to the camp and I another, until about 7 P. M. Nothing having turned up Mr. Lea rode down to where I was, and after consultation we decided to return to our rig, which we had left on top of the mountains, five miles distant, and return next day and look after this camp. Just as we were crossing Rice Creek we saw our man, rifle in hand, coming up the creek on horseback with a deer tied on the saddle behind him. Upon seeing us he turned into the road and as we rode toward him he started his horse on the run. " Hold on, there! We want you," shouted Lea, and putting spurs to his horse was after his man.

Up the mountain road they went as fast as horseflesh could carry them. I could see first one pass around a turn in the road on the mountain side above me, then the other would pass. I could hear the clatter of the horses' hoofs on the road and see the dust as it rose above the brush and trees. Realizing that " something was doing," I wheeled my horse and started back up the bottom of the creek as fast as we could go, my object being to reach a point on the creek where I knew our man could come down the mountain side, cross the creek and reach his camp. After a rough and fast ride of about a mile and a half I halted my horse in the bottom of the creek behind a bunch of willows to listen. I heard a crash in the brush on the mountain side above me, and saw our man coming down the steep side of the mountain, through the brush and over the rocks, making a terrible racket, and as fast as his magnificent horse could carry him. He had thrown away his rifle and deer (a doe) and lost his hat. His clothes were torn in threads from contact with the brush; his horse was covered with foam and compelled to slide on his haunches in order to reach the creek, so steep was the mountain side down which they came. As horse and rider landed in the creek within fifty feet of me I rode out and informed him that he was under arrest, to which he made no reply. We then started for the road, and about the time we reached it were overtaken by Mr. Lea. Our prisoner then turned to us and said: " Where are you fellows going to take me? " We informed him that he would be taken to Upper Lake, forty miles distant. " Well," said he, " you have got me, and you got me good. I tried to get away, but you got me.

and I am going to plead guilty. That was the second doe I have killed in my life, and I felt like a cur when I killed her, and I am glad you have got me." We went up the road and found the rifle and doe about forty feet from the roadside, where they had been thrown in his wild flight. Next morning Mr. Lea took him to Upper Lake, where he pleaded guilty and was fined $25.

During Mr. Lea's absence I remained in camp on top of Elk Mountain, giving the horses a chance to rest up, for we had used them very hard for the past three days. In the afternoon I took a stroll out along the top of the mountain, killing a rattlesnake and locating a couple of camps. It took Mr. Lea from early morning until midnight to make the trip to Upper Lake and return. Next morning, after investigating the camps located the night before, all of which we found clean, we pulled out for Gravely Valley, and late in the afternoon went into camp on Eel River about three miles above Hullville.

Early next morning we started for the top of Snow Mountain, where we had located some camps. We went up the mountain by way of Thistle Glade, then through Hummingbird Glade. and then to the top of the mountain, where we found a camp occupied by three men who had good luck, having eight good bucks hanging in camp, They were making "jerky" of their meat, and did not seem to appreciate their good luck, the privilege granted them by the law, or the value of the meat, as there was about as much meat in their bone pile and there was on the scaffold. They said they had one more deer to kill and would then pull out. During our conversation with them they said they had heard that Lea and another deputy were in the mountains somewhere, and that they hoped they would pull into their camp. They would tell them that they were not "doe punchers," and several other things. After a short rest and a drink of cold water from a nearby spring, Mr. Lea informed them that we were the gentlemen they were so anxious to meet, at which they were much surprised and apologized for some of their previous remarks. We then went along the top of the mountain and down through a number of small glades, through Skeleton Glade, Fir Root Glade and down a ridge to camp, which we reached about 10 P. M.

During the day we saw many deer, mountain quail and grouse, and the tracks of a large bear. This is a beautiful country from a sportsman's point of view. Eel River passes through Gravely Valley, and is full of fine trout, and the hills will satisfy the demands of any sportsman.

The next day we started for San Hedrian Mountain by way of Potter and Eden Valleys. It took us the best part of two days to make the trip ,and we arrived in Eden Valley on the afternoon of August 1, and went into camp near an old mill. We went up the mountain as far as the "Impassable Rocks," but could find no camps. Next morning at 5 A. M. we started for "Monkey Rock," on the top of Hull Mountain, calculating to remain all night at the ranch of Mr. Squires. Arriving at the Squires' place about sunset we found it deserted, Mr. Squires having moved to his summer place. We had been traveling through the mountains all day and neither horses nor ourselves had anything to eat. and as it was fifteen miles through the mountains to camp, and as there was plenty of hay in the barn, we decided to remain all night. An investigation of the house, the latch-string of which hung on the outside, disclosed a little flour in a barrel and some blankets in a bunk. "That's good enough for a game warden," said Lea. "Amen" said I, and forthwith proceeded to mix some of the flour with water. It did not make very good cakes, but they had to answer for our supper and breakfast. Upon going to the spring in the morning I found the water alive with "wigglers," consequently our morning meal of the cakes was much lighter than the evening meal, for as it was dark when I mixed the cakes I could not tell how many thousand "wigglers" I had placed in them, and neither Mr. Lea nor myself had any particular fancy for wiggle fritters. Early in the morning we resumed our journey for the top of Hull Mountain, which we reached about 7 A. M. Not being able to locate any camps we started for our camp, which we reached about 7 P. M., tired and hungry. During these two days in the hills we saw many deer, besides much other game, the tracks of a large bear and cub, and in Elk Creek we saw many fine trout.

We spent the next day in camp, resting our horses and ourselves from the previous two days' hard trip. Late in the afternoon a vaquero passed our camp, driving some hogs. I was engaged at the time in preparing supper, and Mr. Lea volunteered to assist the man drive the hogs. One of the beasts took to the brush, Lea following over some old pine logs. I heard considerable racket in that particular patch of brush, interlarded with some very uncomplimentary remarks, but did not pay any particular attention to it at the time, knowing very well how a hog will sometimes try one's patience. particularly on a hot day when you want to drive him in a certain direction where he don't want to go. Shortly after Mr. Lea came out of the brush patch and walked straight to camp. I asked him what was going on over in that brush patch that caused all the racket, and he said: "Oh, I ran on to a —— rattlesnake over there as big around as your arm. and killed it." "Well," said I, "where are the hogs. "Oh, to —— with the hogs," said he; "I have not lost any —— hogs, or ——— rattlesnakes either." I honestly believe Mr. Lea don't like rattlesnakes. Later I went over and cut the rattles off the snake, and now have them as a trophy of the trip.

The next day we pulled out for Willits by way of Round Valley, Covelo and Laytonville. It took us two days to make the trip. At Willits we separated, I going to San Francisco, Mr. Lea continuing on with the team to Highland Springs. While we were at Hullville we secured evidence that resulted in the arrest and conviction of a man from San Francisco, who had killed deer out of season, more deer than the limit, and a doe in open season. This little fun cost him $75 in fines, besides the costs of a trip from San Francisco to Kelseyville, Lake County. and return. All the territory mentioned in this article is, from a sportsman's point of view, a perfect paradise. Game of every description can be found in abundance, including deer, bear and panther. All the streams—and there are many—are alive with fine trout. The country is easy of access, the scenery grand. and the climate and water unexcelled. Mineral springs are found in most every cañon. I know of no place where a sportsman could pass his vacation to better advantage. While on this trip, I could plainly see the necessity and importance of a system of deer tag licenses, and that also a license should be required from all persons hunting in a county other than that in which they reside. The amount of protection this system would give the game is beyond estimation. and it could be

so arranged as to be of little inconvenience or expense to the sportsmen, but of great importance to the State.

I would also say that in my opinion the deer season opens at least one month too early in the counties of Sonoma, Lake and Mendocino—the territory traveled through by us on this trip. We saw many bucks in the different camps, and the horns of all were in the velvet and some had not attained more than half their growth. No true sportsman wishes to kill deer in the velvet.

I found Mr. Lea a gentleman and officer of ability, a man thoroughly versed in woodcraft, a true sportsman, and one of the most companionable men it has ever been my pleasure to be with in the mountains; and while I honestly believe he is not afraid of man or devil, I do believe he is afraid of rattlesnakes.

PROTECT OUR GAME.

BY JAMES W. STOCKTON.

IT MAY be comforting to Western sportsmen to know that they alone are not wholly responsible for the gradual decrease in the number of valuable game animals, especially deer and quail. I think that it is generally conceded that in most sections of this State their ranks are thinning each year; and this, too, in the face of game laws which are continually tightening their stringent grasp upon "the man behind the gun" in an heroic effort to continue, for a few short years—generations, perhaps—the sport of the mighty Nimrod. The very inefficiency of these laws to accomplish their purpose is in itself sufficient proof that they are aimed only partially true.

Observing men of experience can tell you that cats, coyotes, bears, foxes and cougars are among those who do by far greater damage to deer than do even our summer sportsmen, whose telescopic eyes believe a yearling doe one of the largest of bucks, and whose vivid imagination pictures the magnificent bucks of their bagging to their gaping home friends. Seldom, though, are the antlers in evidence. Substituting "snakes" for "bears" in the above list we have the names of those red-handed at killing quail during all seasons.

Lest you think this a "pipe dream," I'll cite experiences of men who know. i. e., W. C. Burton (Forest Ranger, G. L. O.), says: "I have swindled more than one coyote out of his game when the deer was about ready to give up, and I know that they kill many fawns. I'll say here that a brace or more of coyotes often plan relays and thus capture full-grown deer." Ex-Ranger Towsley of Kern City, a man of long acquaintance with the wilderness ways, corroborates Mr. Burton's statement that coyotes kill many fawns. He graphically described to me how he once noticed a ruby-like substance among some disordered leaves; upon alighting he found it to be the unsheathed hoof of a tiny fawn. This, and a few soft footprints, were all to tell the returning doe, as they did him, that a wolf had visited her nursery.

The cougar's work of destruction is acknowledged by a paltry five-dollar bounty; it should be twenty-five. During a single stroll along a secluded cañon stream of the Tejon Mountains I counted no less than eight carcasses of deer that had come to water no more to return. They probably represented but a small part of the total kill of that vicinity, as a cougar generally buries his catch. That the bear sometimes get deer—whether wounded ones I can not say—is evident by occasionally finding bear ordure filled with deer hair; and Edwin Winters, an observant young man of Tejon Mountains, whose word is authentic, avers that he has seen a fox catch and kill a cached fawn.

The propensities of cats, coyotes, foxes and lions for quail-catching are widely known. I myself often take advantage of this knowledge by loosing the hounds near a quail roost or using ains I was able to note the destruction wrought upon quail by that species of snake commonly called "gopher snake." Of the some half-dozen nests in widely different localities which came under my observation but two made a hatching, and in the case of one of these I intercceded in behalf of Mrs. Quail or her nest would have been wholly destroyed by a large snake; and that they were responsible for at least two of the other nests I am certain.

From the foregoing it is evident that either the deer and quail or the above-named vandals must go; and which it is to be depends upon the future action of our legislators. If a bounty sufficient to pay men to hunt them is placed on cats, coyotes, foxes and lions I think that the result will be most gratifying to all interested in game protection; for not only will the predatory animals almost wholly disappear, but there will be a corresponding increase in the deer and quail supply. If bounty frauds should arise will they be the result of weakness in the legislative or executive branches, and will they necessarily prove that bounties are wrong?

I've said the say of a casual observer, so leave the rest to those who are used to moving things.

NATURAL HISTORY

STUDIES OF YOUNG BIRDS.

Photographed from Life by
R. H. BEEBE.

SHRIKES.

KINGBIRD. REDHEAD WOODPECKER.

SPOTTED SANDPIPER.

MEADOW LARKS.

KINGBIRDS.

Conducted by A. T. Noe, M. D.

CHEW! Ladies, a truce! Remember you are the heavyweights, and so have mercy. I admit being of the weaker sex and ask you not to exterminate me altogether. I am afraid I can not take back my assertion which the experience of twenty years has proved. The indignant remonstrances on the food question which I am daily receiving are somewhat amusing, for they prove conclusively that the "cap fitted." One good lady (weight two hundred and twenty-three pounds) asserts that she eats only one meal a day. Well, perhaps that one meal lasts from the time she gets up till retiring: I would like the pleasure of controlling her food supply for one week. I quite think that she would be much surprised at the change in her weight. I must repeat I do not think that flesh can be reduced by exercises alone, and to diet without exercise is apt to be injurious. I wish to say that it will be impossible to answer questions in this issue, but if the ladies will send me addresses I will endeavor to advise them to the best of my ability.

This article will treat with growing girls and thin women, and I trust they will not take me as a critic, as the fat ladies did, but as an adviser and helper.

It is never too soon to begin training a child to stand, walk and breathe correctly. It is a shocking thing to notice the ill-shaped girls that crowd our schools and cities, and I feel it is so needless a condition, and one so easily remedied, that it is criminal for parents to neglect this important point in a girl's training.

Many a woman's ill health is due to carelessness, and the suffering of years is the result of failure to educate a girl in self-knowledge. I think it is a sacred and holy duty for a mother to teach her daughter the laws of her physical as well as her mental being. Every teacher should train her pupils to know how to use their bodies properly and the consequences of neglect and abuse of the "house in which we live." Many mothers are ignorant, and do not see in their own suffering the result of that ignorance, so they stumble on in blind misery and their daughters follow in the same painful paths. There is nothing so sweet as a modest and pure young girl, but ignorance is not purity. Knowledge of self is a power for good, and the young girl who knows the danger is the one who safely avoids it; while the girl who is ignorant is the one who falls blindly into ill health and misery. Every true physician will back me in this assertion.

Every girl should know that to stand and walk on her heels is sure to cause organic weakness, and that the constant jar of heel walking is most irritating to the spine. She should be taught that the spine is the keyboard of the human body, and that any undue pressure will set up an irritation, the consequence of which is invariably organic disease. She should be trained to use her muscles to keep them firm and active, and not allowed to wear tight and air-excluding clothing.

I expect I shall call more wrath down on my head for my assertions on the clothing question, but as it is of such grave importance I will risk the "wigging" for the sake of health. Not one girl in a thousand is properly clothed. Now, I mean from a purely hygienic standpoint. In the first place, nine out of ten wear wool underwear, long-sleeved and heavy. On this air preventive they wear muslin, then all this packed in with a corset. "Oh!" I hear them say, "I don't wear mine tight." My dear girls, if you wore them as loose as you should you could not keep them on, for they would be slipping round and round you. They must be worn tight in order to press your form into their shape, for no woman

was ever born the shape of a corset. You may not cinch youself, but nevertheless there is a certain amount of pressure, causing the muscles to lose their strength, and they grow to depend upon support instead of holding you up.

If a girl is too stout she should reduce her weight and train her body to proper elasticity. If she is too thin she should develop and round out her body to the proper weight. This can not be done when the pressure of bone, steel and thick material crowds down the muscles that should be full of blood and vim, till they are flabby, weak and worthless. What does a young girl, full of life, and her blood flowing with the vigor of youth, need of artificial support that is only detrimental to her health? A very fat old woman has an excuse to wear a corset, but no one else, and a mother who truly loves her girl will avoid the corset as she would poison. If there must be a something to which clothing may be fastened, there are many sanitary waists that can be worn with comfort, but I advise the use of the muscles Mother Nature has provided for us, as the best means of having clothes look well.

I have so often spoken against wool as a skin covering it is hardly necessary to repeat its many disadvantages. I will say that it is not only absolutely worthless as underwear, but it is positively injurious, for it excludes all air and keeps the skin damp, weak and flaccid. To a growing girl this is a very dangerous state for the skin to be in, making her susceptible to all sorts of lung and blood diseases. So many young girls have bad complexions and the reasons will often be found in corsets and wool. Of course there are other causes for sallow skins and pimples, but when a girl has a vigorous, active skin she seldom has any flaws on it.

What I think most growing girls are in need of, is that no one part of their makeup should be allowed to over-develop. A balance between the two sides of their nature is most necessary to health, and it is the overgrowth of one or the other that makes so many nervous, weak and delicate girls. The school life of to-day is too full of mental strain, and as the teachers have no time for anything save lessons, it is the duty of parents to see to it that the body gets a share of attention. They should be sure that their girls sleep in very well ventilated rooms, that they do not overeat, and that what they do eat should be good and wholesome.

Bathing and cold water vigorously applied, followed by a thorough use of every muscle in the body, is as fine a tonic as can be found. It has been objected that girls are too delicate to stand vigorous exercise and that cold water hurts them. Now this is all wrong. Of course discretion must be used. When a girl has become weak and nervous it is not wise to plunge into such extreme measures, but by careful and slow progress train her until she enjoys the exercise, when a cold tubbing will invigorate and refresh her. I make a plea for vigorous exercise, not violent. There is a wide difference in the two terms. One may take an exercise with vim and energy and derive all possible benefit from it; take the same kind of work with violence and you will injure, not better yourself.

Do not allow young girls to exercise in a gymnasium unless under the careful and watchful direction of competent teachers. For there is an element of excitement that keeps a girl up through such exercise that is apt to cause her to overdo, and I find many cases of spinal irritation which have had their origin in the violent exercise of a gymnasium. Nature never builds in a hurry; the acorn is the tree in potentiality, but it takes many years to make the potentiality a reality. With health each one of us should possess it, but it must be developed and cared for if we would keep it. So do not rush into violent, sudden or spasmodic measures, but slowly, steadily work to gain the desired physical conditions.

Most girls are inclined to stand with the whole weight of the body resting on one foot. This raises one hip higher than the other and throws the whole organic system out of poise. This is a most dangerous condition of affairs, and will generate disease in a perfectly well person. Every organ, muscle, nerve, etc., has its proper place, and when it is thrust out of it, must in turn displace others. Therefore, to be well and strong, and to grow into a healthy, well-formed woman, a girl must be taught to stand properly. The balls of the feet must bear the weight, and if there are no tight

clothes to prevent, then all the organs will fall into their proper place, and be able to perform their functions with ease. This means health; in fact, I feel that it is almost impossible for disease to get a hold on a well-poised girl who breathes deeply, and who takes a reasonable amount of exercise. Figure 41 shows a fifteen-year-old girl standing in the lax, out-of-poise position common to girls, and figures 42 and 43 give the same model standing poised on balls of feet, every muscle ready for work, and the whole figure expressing life and animation. Figure 41 tells the tale to the practiced eye, of weak digestion, nervousness, backache and low vitality. Figures 42 and 43 bespeaks vigor, activity, keenness and self-control. This model has been a great sufferer, but it is easily seen she is far from the weakling figure 41 indicates.

Another thing for growing girls to be trained in is the matter of sleep. They should have plenty of sleep, and the first part of the night is far more beneficial than late in the morning. It is best to get up as soon as she awakes in the morning, as the longer she lies in bed her skin becomes moist and lax, the feet are apt to become cold and all the vitality gathered up during sleep is lost. As soon as she is thoroughly awakened, jump out and take a good scrub, cold water if possible, followed by a good rub down with a rough linen towel. See that the back is especially in a glow and you will be amazed at the wonderful change in the temper, health and mental state of your child.

Now another thing is the matter of breakfast. If you send your girl off to school in the morning full of meat, hot bread, coffee, potatoes, pancakes, ham and eggs, mush and milk, etc., and she sits quietly in school all morning with little or no physical exertion, how in the name of common sense is her poor body to take care of it all? Here is the beginning of our nervous women, irritable to a degree, and unable to stand the slightest strain. Do not allow the growing girl to eat a heavy breakfast. Whole wheat bread toast, and fruit, or fruit alone, is enough. The body is restored and refreshed from sleep, and we do not require a large amount of food at that time. It is like trying to fill an already full stove, and the overflow is what makes the trouble; a heavy breakfast is simply a sure way to fog and densify the mind, and you will find your girl much less nervous if you will teach her to eat lightly, very lightly, in the morning. The taste for a large breakfast is purely a habit, and can be easily overcome by a little will power. Fried things are bad for the complexion and are best let alone, while the more fruit and raw vegetables girls eat the better.

Now as to thin women. To be abnormally thin is as much a disease as to be overly fat. There must be a reason for the mal-nutrition, and I can not give directions for flesh production that will cover all sorts of cases. If there is no organic difficulty, no spinal tension, or pressure, there is no reason why a woman, even of mature years, should not round herself out and develop and increase her muscles, especially if they are of a motive or bilious temperament; the very fact of their nervousness keeps them down and prevents the fats of the body from nourishing them. The nervousness must be overcome before thin women can ever hope to gain weight. The deep breathing given in May number, 1903, will be found excellent for overcoming nervousness, and also a great help in overcoming thinness. Teach yourself to rest, to relax when you sit or lie down; don't keep every nerve on a tension, but allow your whole body to rest at ease. Let the chair hold you; do not try to hold it up. When you lie down, relax thoroughly every muscle in your body. Try to get as limp as possible and do not sleep all twisted and curled up in a bunch. This is sure to prove hurtful and increase more tension. You must sleep well.

As to eating, I find this a hard subject upon which to give directions. When a nervous, thin woman has a large appetite, and eats a good deal, she is apt to over-eat, and it is a drain on her system to get rid of the food. The best advice I can give with regard to eating is that you are sure to eat that which agrees with you, and not more than you can assimilate. Lettuce is an excellent food for thin people, so are celery and apples in a raw state. But a limited diet of a few things is the safest course to pursue. To those who are weak, an exclusive diet of milk is sometimes beneficial, especially taken warm from the cow. I would avoid a great mixture of foods, as this is almost sure to produce malnutrition and acids, causing dyspepsia.

41
42
43
44
45
46

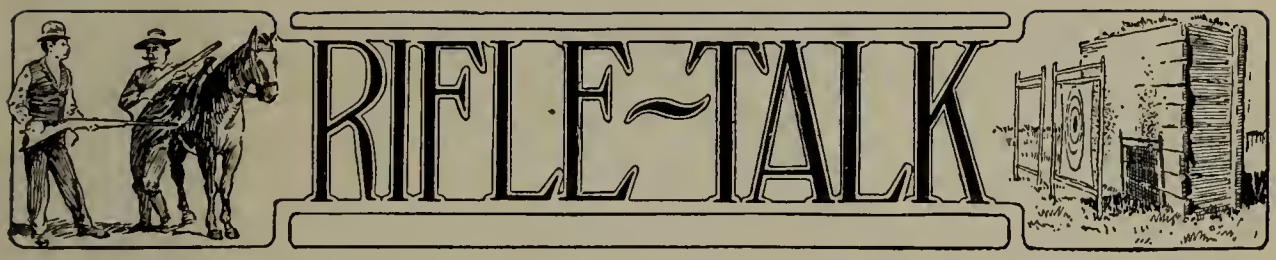
Poor circulation is often the cause of thinness, and a good way to overcome that condition is by exercise. Take the course of physical work I have given in these pages, and by being careful not to overdo at first, you will soon be able to take vigorous exercise with much benefit. Walking before meals is excellent, and to lie down for a few moments and relax after eating is good for flesh making. Always see to it that there is a great deal of fresh air in your sleeping room, and be careful not to sleep with too much covering. I strongly advocate not eating before retiring, but to drink at least half a pint of pure, cold water. Tepid or cold waters are fine for the circulation, especially if followed by a brisk rub down with a rough towel. After the cold bath is a good time to exercise, and to take a short, brisk walk. Be sure to walk on the balls of the feet, with your chest up, body slightly forward on the pelvis. This position will allow your shoulders to drop down and back, taking the weight off your spine, and avoids jarring or jolting while walking. Never stand on your heels. Always remember to relax after exercising and try to keep the mind free from worry and excitement during that resting period.

With regard to clothing, I think the advice I have given for growing girls will apply equally as well to thin women. Allow all the fresh air possible to reach your skin, and avoid wool as you would poison. Open linen mesh is by far the best skin covering you can find, and as it keeps the skin dry and warm, is a most valuable fabric for underwear. It is a mistake to think that it is clothes that warm us, for they only serve as a protection from the elements. All the clothes possible would not warm a dead body; the real warmth comes from within the body itself, and good skin and fine circulation are far more valuable to give us warmth than all the woolen clothes in the world. Take an air bath as often as you can, and if it is possible to sit in the sun at the same time, so much the better. Morning sun is better to give strength than the afternoon sun.

The model of figures 44, 45, 46 is an example of what a little persistence in standing correctly, breathing and careful diet will do. An intense sufferer from childhood, with headaches and organic difficulties, she in a few months has almost entirely overcome her weakness and has completely eradicated the headaches. She has increased her weight, enjoys brisk walks, and says she feels like a girl—full of vim and enthusiasm. But if she had never taught herself to overcome the position of figure 44 she would still be weak and ill, lacking vital strength. No woman can feel as she should when she is out of poise. For when the body is resting out of its normal position it naturally causes an abnormal condition, and the result is functional if not organic disease. Thin women are apt to stand with more weight on one foot than the other. This is a very harmful thing to do. It is surprising to find that the great majority of women have one hip higher than the other and very few women, stout or thin, are equally developed on both sides. If you find that the right or left side is more fully developed than the other, begin to exercise the weak side first and give it triple more work to do than the other.

I find a great many thin women don't mind it so much, only they hate to have their necks so bony. Every woman can have a round neck if she wishes to, but it will take much patience, persistence and system. The following exercises are sure to overcome thin necks if the subject will diligently practice them every night and morning: Relax head, and by turning shoulders and body, revolve head about on neck like a pivot, from right to left several times, then reverse. Fill lungs and mouth with air and then try to thrust outward all the neck muscles. Repeat at least twenty-five times a day. This puffing out of the throat is an excellent muscular exercise for weak throats and will do marvels in filling up holes and unsightly hollows. Cold water, followed by a brisk rubbing, is good, and a thorough massage with cocoa butter develops and feeds the muscles and tissues. If these simple directions are followed no woman who is well need complain of a thin neck.

To the thin woman, as to the fat ones, I say, you must work if you wish to be normal, well-formed women. Exercise and the use of your will power in the application of the directions given will surely make a great change in your appearance. Always remember that the thing worth having is worth striving for.



PRACTICAL RIFLE SHOOTING.

By D. W. King, Jr.

PART VI.

A VERY important point in rifle shooting, one very little understood and therefore having but very little attention paid to it, is the holding of the rifle in the same position and with the same firmness and pressure against the shoulder every shot.

That is the reason so much better results are obtained by shooting a rifle from a machine rest in determining its accuracy.

Some of our most expert rest shooters, with their perfect rests at both ends of the gun, have done nearly as well as with machine rests, but the secret of their success in this line is due to their being able to hold the gun in practically the same manner for each shot.

The uniformity with which a gun is held against the shoulder, the pressure of the hands, and rigidity of the arms and plan of grasping the gun, all play an important part in all kinds of shooting, whether it be done with a rest or offhand, with a rifle, pistol, revolver or a shotgun. The effects are the same, and your success will depend largely upon your ability to always "hold" the same under all conditions and circumstances.

Of course, the heavier the gun the less the effect from a difference in holding. While a heavy barrel holds steadier than a light one, and the motion is not so fast as a light one, the reduction of variation from irregular holding is another point in its favor. There are hardly any two persons who can shoot the same gun with the same degree of accuracy; part of this is, of course, due to the difference in people's eyes and their manner of sighting, but a great deal of it is due to the difference in holding.

Any gun will always shoot higher from a rest than when shot offhand; the difference will vary according to the weight of the gun, weight of bullet, charge of powder, velocity, pressure with which the gun is held, the substance upon which it is rested and upon the distance from the muzzle of the gun to where the rest is placed.

The lighter the gun, the higher the velocity; the tighter the grip, the harder the rest, and the nearer the muzzle the gun is rested, the higher it will shoot.

A sack of sand is about as good a thing to rest a gun on as can be ordinarily found, and the barrel should be rested ahead of the forearm and a little more than half the way up the barrel from the breech for good results, but will vary a little in different guns according to weight, position held, load, etc.

The reason a gun shoots higher from a rest than offhand is that a rest, being harder and more solid than the hand and arm, offers more resistance to the recoil and forces the muzzle of the gun higher after the explosion takes place and before the bullet leaves the muzzle. The natural recoil would be straight backward, but the resistance at the butt, being below the line of the bore, naturally forces the muzzle upward, and the tighter the gun is held, so preventing a backward recoil, increases the upward recoil.

The nearer the muzzle it is held or rested, the higher it shoots; as it does not allow for the amount of "flip" of the barrel at the time of the explosion.

In rest shooting it is sometimes quite difficult to get your sights adjusted to shoot exactly to the spot—especially with open sights—as sometimes the change is so small that the adjustments on the sight will not allow it; but such a change would make quite a little difference up or down in a string of ten shots if you were shooting "string measure."

You can generally remedy so small a change by sliding the gun a little farther forward or backward on the rest, as the case may require.

This is more satisfactory and reliable than trying to change position or pressure in holding —a point one should pay strict attention to, practicing regularity whenever shooting.

The pulling of a trigger, while a very important point, seems to vary considerable among shooters, and each one has his own idea in regard to it.

Many people—especially nervously inclined ones—pull all at once, or "snap shoot" by hitting or pulling the trigger suddenly and hard enough to set it off, holding their fingers still and away from the trigger until ready to pull.

Others keep moving their finger on and off the trigger very rapidly and very lightly until it comes just right, when they hit the trigger an extra hard tap and set it off.

More, however, lay their finger firmly on the trigger and pull gradually by simply squeezing the hand together, and do not know at just what instant it is going. I generally prefer this way myself and hardly ever try any other pull-off, but have found that at times I could do better for a short period by "snapping."

I have achieved quite a help to my pulling by putting a small cork on my trigger; this gives more pulling surface to my finger, allowing the use of a harder and safer trigger pull, and at the same time appears to require but a very light effort, owing to the pressure on the finger being distributed over so much more surface.

There are quite a number of others using it now and they seem in most cases to find it a benefit in their shooting.

THE SPORTING RIFLE.

By E. A. Leopold.

PART V.

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A FEW remarks of a general nature in regard to the ballistic pendulum may not be considered out of place at the present time. The device, in various forms, has been used for many purposes in times past, and has been severely criticised by such eminent authorities as Professor Bashforth and others who have made scientific investigations of problems in gunnery.

The velocity and momentum of projectiles fired from ordnance, and also from small arms, have been measured with more or less accuracy by means of a form of ballistic pendulum, in which the lower end of the oscillating bar carried a "receiver" which caught and retained the shot. The receiver was generally constructed of wooden blocks, a sufficient amount of timber being employed to effectually overcome the energy of the shot.

It was necessary to know the exact weight of the pendulum, and this varied continually on account of the balls which lodged in it and, of course, added to its weight. Under such circumstances it was necessary to make a different computation for each shot, besides the center of gravity of the pendulum would be liable to change with every shot, and this, if not allowed for, would introduce a small error. A greater error would undoubtedly result from the lack of absolute accuracy in the gun when firing at a range of 300 feet or more, the shot failing to strike the center would cause serious vibration and thus introduce a variation the magnitude of which could not be fairly estimated.

Bashforth says: "The earliest of these experiments of any value were made by Robins (1742), and by Hutton (1783-91). They were remarkably successful considering the inherent defects of the ballistic pendulum which was used by them in the measurement of velocities."

"The distance between the gun and pendulum in Hutton's experiments varied from 30 to 430 feet. The weights of his spherical balls varied from about 1 to 6 pounds, and their diameters from 2 to 3½ inches. In the course of these experiments the weight of the pendulum was increased from about 500 to 1,800 pounds."

"In 1839 and 1840 experiments on the resistance of the air to the motion of spherical shot were carried on at Metz by order of the French Minister for War by a commission of which MM. Piobert, Morin and Didion were members. The weights of the projectiles used in these experiments varied from about 11 to 50 pounds, and their diameters from 4 to 8.7 inches. The distance between the gun and the ballistic pendulum varied from about 50 to 330 feet. The mean weight of the receiver was nearly six tons."

"Applying now the formula of M. Didion, * * * and also the new formula derived from the mean of Hutton's experiments with 3 and 6 pound balls, * * * to calculate the resistance of the air to a spherical shot 10 inches in diameter, moving with a velocity of 1,400 feet, we find that M. Didion's formula gives 1,088 pounds, and that the formula derived by him from Hutton's experiments gives 1,189 pounds. Recent experiments have given 1,204 pounds, showing that Hutton's experiments were more exact than those of Didion, which fact leads to the conclusion that Hutton had reached the limiting weight of shot which could with advantage be employed in conjunction with the ballistic pendulum. Notwithstanding this, very large ballistic and gun pendulums were constructed at the Elswick engine works in 1855 for the experimental establishment under the Ordnance Select Committee at Shoeburyness, which were 'designed to afford data for calculating the initial velocity of cannon shot.' But these monsters have never been used for the purpose for which they are said to have been designed. This is probably the most costly ballistic pendulum that ever was constructed. Elaborate models of these unused instruments may be seen in the rotunda at Woolwich, which are said to have cost $4,000."

It appears from the above that while the small pendulums gave good results, the large ones were less reliable.

My pendulum, which was illustrated in connection with a former chapter, was intended primarily to measure accurately the recoil of small arms, rifles and shotguns; but it will also furnish data from which the velocity of the projectile may be computed, besides illustrating the peculiar differences of recoil between black and smokeless ammunition, and between the various classes of smokeless ammunition. The gun itself being a part of the pendulum, its motion is a true oscillation in the plane of fire, undisturbed by lateral vibrations and tendencies to rotary motion, which must always be a disturbing element in the class of instruments in which the shot is projected into and utilizes its energy in disintegrating a portion of the pendulum.

Another feature of my instrument is the trigger-pulling device, the brake of which can be taken off without disturbing the perfect immobility of the gun. This is proven by the grouping of the shots in the bulkhead.

The following table illustrates the character of the work done by the gun pendulum, and these results, taken in connection with the pressure measurements attained by the use of the shoulder meter, furnish data that will enable any one to acquire a very fair understanding of the various features of recoil.

The shoulder meter was designed by the writer to measure in a direct manner the effect of the gun upon the shoulder of the shooter, and to record the measurements in plain pound units which every shooter can fully comprehend. The meter is a small instrument which is placed between the butt stock of the gun and the shoulder, and makes a record of whatever pressure may be brought to bear upon it. It is self-registering, and need not be watched closely during action, as the measurement of the highest pres-

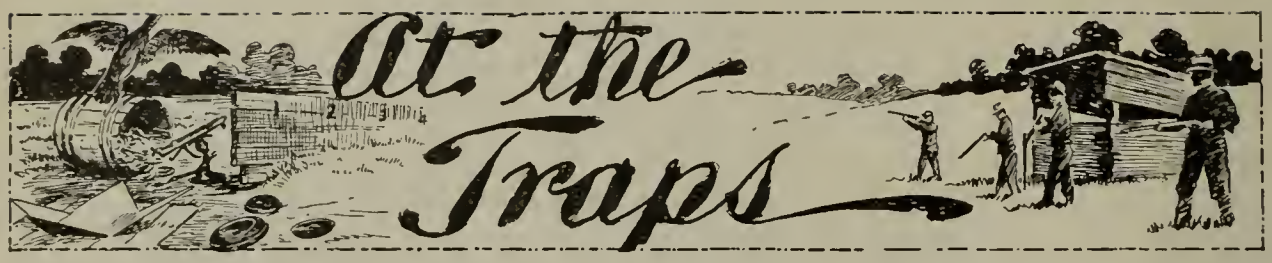
sure can be read off at leisure after the shot is fired. While it does not give as uniform results as does the ballistic pendulum, still it is sufficiently reliable to make all ordinary tests, and its records are more easily understood by the average rifleman:

No.	Name of Maker	RIFLES: Calibers, inches	Length of Barrel, inches	Weights, Pounds	POWDERS. Weight in Grains: L. & R., .45 Caliber	DuPont, .30 Caliber	DuPont, No. 1	Hazard, FFg	Hazard, Fg	BULLETS. Weight Grains: Grooved	Jacketed	Velocity, Foot-seconds	Energy, Foot-pounds	RECOIL. Energy. Tested with Ballistic Pendulum, Foot-pounds	Max. Pres. Measured with Shoulder Meter, Pounds	Trajectories. Range 200 Yards. Heights at 100 Yards. Inches.
1	Stevens	.22	21	6.5	5	..	..	..	..	57.5	...	1520	295	.426	15.5	11.25
2	Stevens	.22	21	6.5	....	13	..	..	..	57.5	...	1625	338	.452	17	9.98
3	Stevens	.22	21	6.5	....	..	6	..	..	57.5	...	1570	311	.536	16	10.83
4	Stevens	.22	21	6.5	....	..	..	16	..	57.5	...	1440	264	.490	17.5	12.90
5	Pope	.28	23	7.5	10.2	..	..	..	..	123	...	1445	611	1.94	35	10.24
6	Pope	.28	23	7.5	....	19	..	..	..	123	...	1390	566	1.80	.....	11.16
7	Pope	.28	23	7.5	....	..	..	26	..	123	...	1260	464	1.86	.....	13.80
8	Pope	.28	23	7.5	....	..	..	30	..	123	...	1370	549	2.31	.....	12.02
9	Pope	.28	23	7.5	9	..	..	..	..	123	...	1380	557	1.61	.....	11.42
10	Marlin	.32	24	7.5	12	..	..	..	..	165	...	1425	745	3.59	39	10.89
11	Marlin	.32	24	7.5	....	..	..	..	40	165	...	1425	745	4.50	42.25	10.89
12	Marlin	.32	24	7.5	....	..	..	..	..	....	165	1940	1385	6.71	64	6.31
13	Pope	.32	27	11	12	..	..	..	..	165	...	1345	664	2.11	.....	12.24
14	Pope	.32	27	11	....	..	..	..	40	165	...	1385	706	3.21	.....	11.32
15	Pope	.32	27	11	....	24	..	..	..	165	...	....	....	2.40	.....	.....
16	Pope	.32	27	11	....	..	17	..	..	165	...	....	....	2.14	.....	.....

So many details are shown in the above table that it is not necessary to discuss any of its features at great length. There are many problems and peculiarities presented, but in such a way that the student of gunnery has something tangible to work on.

For convenient reference the different series are numbered in the first column. Comparing Series No. 11 with Series No. 14, we find that the Marlin repeating rifle gave higher velocities than the Pope target rifle, each being loaded the same, the Marlin showing superior energy to the extent of 39 foot pounds, and a flatter trajectory as will be noted in the last column. The probable reason for this is because the Pope rifle is an old one, from which many thousands of shots have been fired during the past ten or twelve years. Its velocity, however, seems to be up to the standard, as appears by a reference to the Winchester catalogue, which gives the trajectory of the .32-40 rifle at 11.32 inches, making it appear as though I had copied my trajectory figures from the Winchester book, which is not the case. All of the above trajectories were made on my own range.

The great difference in recoil produced by black powder and by smokeless is well illustrated in the table. Comparing series No. 1 and No. 4, we note that the Stevens .22 caliber, charged with 5 grains of Laflin & Rand smokeless powder, has a recoil of .426 foot pounds and a trajectory 11.25 inches high, while the same weapon, charged with 16 grains of black powder, gives a recoil of .490 foot pounds, and the trajectory is 12.90, showing much less velocity. The same rule holds good with the .28 and .32 calibers. The smokeless powder is effective in killing the game, while the black punishes the shooter.



THE ASSOCIATION TOURNAMENT.

THE initial tournament of the Pacific Coast Trap Shooters Association was held at Ingleside. on the grounds of the San Francisco Trap Shooters' Association, on the days of May 29 and 30.

The programme proved an exceedingly interesting one, drawing forth knights of the gun from all parts of the State. Eighty-seven men shot through six events on the first day, sixty-five on the second. The weather proved to be exceptional, having little wind that made shooting quite difficult. Enthusiasm among the participants was of such an extent that on the first day 12,500 birds were trapped, on the second 9,000. On the first day seven straight scores were reported.

The arrangement of programme was the best that has been presented to the sportsmen for years past, everything working so smoothly that in running the six events through which the eighty-seven men shot throughout the day it only consumed from 10 A. M. to 5 P. M., with an hour for lunch each day.

High average the first day was made by Broderick with 108 out of a possible 120, Nauman following a close second with 107. Also among the interesting features of the day were team shoots, in which seven teams, five men each, took part.

Team—	Possible 100.
Golden Gate Team No. 1	95
Union Gun Club	90
Hercules Team of Pinole	87
Watsonville Team	86
Golden Gate Team No. 2	83
Fresno Team	79
Union Gun Club No. 2	75
Vallejo Team	71

Pool shooting was indulged in with great interest by all shooters.

The second day was quite as interesting as the first, with the exception of a dropping off of some of the sportsmen who participated on the first day. The programme was the same as the first day, with an additional 100-bird race for the Bekeart Challenge Cup, which C. Nauman held heretofore. Eight men participated in this event, and a very close contest resulted therefrom, owing to the fact that Webb and Varien tied with 96; Iverson was second with 94; Broderick, Nauman and Sylvester tied with 92; Reed took next place with 86, and Stone finishing last with 78.

The weather was as fine as the day before, with the exception that it brought with it increased wind, making shooting more difficult. Large crowds of spectators witnessed the tournament both days.

Members of the association held a banquet at 8:30 P. M. in the Russ House, and spent a pleasant evening in bringing back to memory the events of the two days, together with experiences of past years.

The Pacific Coast Trap Shooters Association have elected to give another tournament during 1904.

The scores were as follows:

	First Day.	Second Day.
Anderson	15 16 18 17 17 16	
C. Ashlin	20 15 16 17 12 16	17 16 18 14 9 16
Albright	16 15 11 14 12 15	
B. Angonette	10 5 3 19 18 16	
Dr. Barker	16 15 17 19 18 18	17 18 16 18 16 16
J. W. Brodrick	17 19 17 16 15 13	16 16 16 19 18 18
Phil Bekeart	15 16 11 8 14 10	
A. J. Burton	16 11 13	10 12 10 12 9 12
H. Boysen	12 12 11 17 10 ..	
Jos. Burns	16 12 16 .. 20 17	
H. Boysen	12 12 11 17 10 ..	
Jos. Burns	16 12 16 .. 20 17	
J. Bruns	15 14	17 13 12 15 16 13
B. J. Baun	14 10	
Geo. Barber	.. .. .. 8 9 11	
Barney	.. .. .. 14 12 14	
Carr	16 14 15 20 16 14	15 18 15 17 14 17
J. H. Clark	9 9 9	
C. H. Cate	15 19 17 14 17 16	15 14 13 18 17 17
M. A. Clark	14 16 6 15 15 14	
Chick	.. ..	.. .. .. 10 10 ..
D. Daniels	18 17 17 13 16 17	18 19 14 15 13 18
Donahoe	17 18 17 17 14 19	
C. Dechow	8 12 9	
C. H. Drake	17 14 16 14 14 18	
O. Feudner	18 17 18 17 18 18	18 19 15 16 18 17
E. Foster	16 18 16 18 20 19	16 14 17 18 17 18
F. P. Fanning	19 15 19 16 16 15	17 17 15 .. .. ..
R. Fuller	17 16 17	
H. T. Fraham	16 11 10 16 10 12	18 12 12 13 16 13
A. Flickinger	17 17 17 15 14 16	18 18 15 17 15 16
C. Frankel	16 10 8 14 12 13	11 11 11 .. .. ..
Gamble	17 19 8 15 17 18	.. .. .. 17 17 15
W. J. Golcher	18 15 14 17 19 19	14 13 10 18 17 10
Green	16 14 17 17 18 18	15 11 11 18 18 16
Grimm	16 12 16 13 17 17	
W. S. George	9 12 15	13 8 9 .. .. ..
Gill	.. .. 14 13	
Hall	14 14 13 14 7 12	11 12 9 .. .. ..
F. J. Hesse	16 14 17 18 11 14	20 17 15 .. .. ..
W. Hansen	19 18 16 17 17 16	16 14 18 14 17 15
Dr. Hutton	18 18 14 11 12 12	13 14 16 12 11 12
H. A. Hoyt	17 16 17 17 17 17	17 14 16 15 19 18
J. B. Hauer	14 16 13 17 11 15	14 13 16 .. .. ..
A. Holdeclau	18 15 12 20 18 17	18 17 18 .. .. ..
C. Haight	16 16 17 18 16 19	16 15 14 16 19 17
H. A. Hodapp	16 9 11 14 12 18	
D. Hirschle	15 11 12 13 16 11	
Herring	.. .. .. 16 15 18	
M. Iverson	19 18 15 18 17 17	18 18 15 17 15 12
H. P. Jacobsen	15 17 10 12 17 14	13 14 10 16 14 9
Johns	10 12 8	
C. C. Juster	.. ..	17 12 13 .. .. ..
E. Klevesahl	18 14 17 17 17 17	17 8 16 18 17 18

H. Klevesahl	16 18 15 16 16 13	8 17 12 . . . . .
J. Karney	19 14 18 14 13 17	19 15 17 18 15 15
Kincannon	15 15 15 17 17 17	18 18 17 10 11 16
F. Knick	9 6 4	
Lowery	19 17 13 17 17 13	16 16 18 . . . . .
Lion	15 15 13 16 15 14	
Laing	12 17 18 15 13 11	16 14 14 15 15 10
Lewis	13 15 16 10 11 7	15 10 9 15 15 8
McMahon	13 12 12 17 15 13	. . . . . 14 14 14
McCutcheon	16 18 13 15 14 15	
Mitchell	15 12 14 17 15 15	
Moore	15 16 8 14 14 14	15 14 13 16 15 12
Muller	13 15 15 16 14 15	
Matthews	15 13 9 12 13 12	
Masterson	8 13 13 12 14 15	12 16 10 13 13 18
Magistrini	8 17 17 15 15 17	
Murdock	19 17 16	17 14 16 . . . . .
Monday	. . . . . 19	
Nauman	18 19 18 18 17 17	20 17 15 20 20 20
O'Hara	10 10 7 16 14 14	
Price	10 14 11 13 15 11	14 12 13 . . . . .
Potter	15 13 18 13 17 16	17 15 18 . . . . .
Payne	17 16 17 16 16 17	. . . . . 13 9 13
Pisani	17 16 17 16 13 15	
Petries	. . . . .	20 15 13 16 16 16
Roberts	14 14 12 16 16 15	16 10 11 . . . . .
Reed	17 19 18 18 17 16	18 16 15 20 17 16
Ryan	20 16 16 14 13 12	12 15 14 16 18 17
C. Sylvester	17 16 18 14 17 18	20 17 15 16 16 18
Stone	15 15 16 17 16 17	14 16 13 18 17 18
Sears	15 19 13 17 16 15	19 18 14 19 19 16
G. Sylvester	19 19 17 16 17 14	17 16 19 14 19 19
Slade	18 18 16 11 12 16	17 16 14 15 19 15
Slusser	18 16 17 20 18 15	16 13 13 . . . . .
Stone	16 16 20 18 17 16	17 13 12 . . . . .
Shields	18 14 13 18 13 18	. . . . . 15 17 15
Swarts	14 11 . . 18 8 12	
Sweeney	. . . . . 14 17 12	
Varien	19 18 18 16 17 18	19 17 15 19 16 16
Webb	19 19 18 16 16 16	19 18 18 17 18 17
Work	19 16 16 12 16 16	15 18 15 17 14 15
Wattles	19 15 16 15 14 15	20 13 17 . . . . .
Young	. . . . .	12 12 14 . . . . .

TEAM SHOOT—May 29, 1904.

Golden Gate No. 1.		Watsonville.	
O. Feudner	17	Barker	15
C. Nauman	20	Green	16
A. C. Webb	20	Varien	20
R. C. Reed	20	Carr	19
E. Klevesahl	18	Work	16
Total	95	Total	86
Union No. 1.		**Golden Gate No. 2.**	
J. Brodrick	18	Potter	16
M. Iverson	17	H. Klevesahl	14
D. Daniels	18	E. Foster	17
G. Sylvester	19	W. S. Wattles	18
C. A. Haight	18	Gamble	18
Total	90	Total	83
Hercules.		**Union No. 2.**	
Moore	15	J. McCutcheon	17
C. Sylvester	18	H. P. Jacobsen	14
W. Hansen	19	Herring	16
Kincannon	18	Hoyt	15
Lowery	17	T. Lewis	13
Total	87	Total	75
Fresno.		**Vallejo.**	
F. J. Fanning	17	P. Magistrini	12
G. Stone	18	Drake	17
F. Stone	16	Clark	16
Holdclau	14	O'Hara	15
J. J. Ryan	14	Hirschle	11
Total	79	Total	71

TEAM SHOOT—May 30, 1904.

Golden Gate No. 1.		Watsonville.	
O. Feudner	18	Green	18
C. Nauman	20	Carr	14
A. C. Webb	19	Varien	19
Total	57	Total	51
Union No. 1.		**Hercules.**	
M. Iverson	18	W. Hansen	14
G. Sylvester	20	C. Sylvester	17
D. Daniels	18	Kincannon	19
Total	56	Total	50
Union No. 2.		**Fresno.**	
J. Brodrick	18	Stone	18
Dr. Petries	17	F. J. Fanning	16
Gamble	20	Wattles	13
Total	55	Total	47
Golden Gate No. 2.			
E. Klevesahl	17		
R. C. Reed	17		
E. Foster	19		
Total	53		

HINTS TO AMATEURS.

PART V.—PUTTING.

By Arthur Inkersley.

HAVING discussed the drive, playing through the green and the approach, it now remains to talk of putting. It has been said that driving is an art; approaching is a science; but putting is an inspiration. Though approach shots are the most difficult, it is putting that wins or loses the hole. A well-known professional used to say: "The man who can putt can play anybody." Putting is of two kinds, approach-putting and putting out, the names being given with regard to the intention of the player rather than to the actual result of the stroke. A putt of twenty or twenty-five yards is an approach-putt, even though the ball is actually holed out; and a putt of two feet comes under the head of putting out or holing out, even though it fails to do so.

In playing short putts it is difficult to hit the ball true; the stroke being so gentle. Keeping the eye riveted on the ball is the best help to hitting it true. Yet in short putts, the fact of the hole being so near tempts the player to take his eye off the ball at the instant of hitting and glance at the cup or at the blade of grass over which he intends the ball to pass. There are two methods in putting—one being to aim directly at the hole, and the other to stand behind the ball so as to see the proper line, and pick out a blade of grass over which the ball is to pass. When the blade of grass is selected, the hole is disregarded as to direction, and is considered only with reference to the strength of the stroke required. Though the former method may on some occasions work successfully, it is believed that the latter plan is much more certain to produce good results on the average.

Putting requires a delicate touch. The putter, therefore, should be perfectly balanced but without spring. The shaft should be short, so that the player can stand well over the ball to get the direction. The head should be light, so that the club may be swung well back along the line of intended course of the ball. Putters frequently are made with too heavy heads. The secret of accurate putting, as of long driving, is that the club should travel as long as possible on the line on which the ball is intended to travel. This may be practiced better in a carpeted room than on a putting-green. The player, not using a ball, should see how he can best get the head of his putter to travel along a straight line of the pattern of the carpet. This practice is said to be better for the true hitting of the ball than outdoor play.

The usual position adopted for putting is similar to that for iron play—viz., off the right leg. Professional golfers, almost to a man, adopt this position. The right leg is forward, with the ball nearly opposite the right foot. The putter is held with a nearly equal grip with both hands, the grip with the right being a little firmer than with the left. Gripping too tightly with the right hand tends to place the ball to the left of the hole, and gripping too firmly with the left hand tends to send the ball to the right of the hole. In general, the ball should be struck truly with the center of the head of the club, though some great players do hit the ball more with the toe of the putter. This plan, however, is not to be recommended to beginners.

In putting the stroke is made almost entirely with the wrists, with which the club is swung. Many of the best putters of early days used their wrists almost entirely and allowed the club to swing far through after the ball. To check the easy forward swing of the club as it meets the ball is injurious to accurate putting. The putter should be taken to a room where the pattern of the carpet or the board flooring shows a straight line. The face of the putter having been placed at right angles to the line, the player should stand in much the same position as for the half iron shot, but with his feet a little closer together. The right forearm may rest on the right thigh, if that seems comfortable. The putter should then be swung backward and forward from the wrist. If, instead of working truly over the line, it works across it from out in, the player should place his right foot a little back and advance his left somewhat. If the club-head works from inside to outside the line, the player should bring his right foot a little forward and draw back his left foot a little. The hands must work in an easy, natural manner, the change in direction of the club-head being effected by altering the position of the feet. When the putter is traveling straight and true along the line, the player should note carefully the position of his feet and of the imaginary ball. As the hands grip the club in a natural manner, it is probable that bad putting is caused by the wrong relative position of the ball and the player's feet.

Putting is a matter calling for great nicety; therefore the putter should be held in the fingers and not home in the palm. To increase the delicacy of the hand, the thumbs should be laid down along the shaft of the club. There should be no jerk about any golf stroke, but especially not about the putting stroke. The club must be swung back from the ball gently and then be brought forward smoothly. It must be held firmly enough to prevent its getting loose from

Crandall, Photo.

PUTTING GREEN, PASADENA COUNTRY CLUB.

the grip when its head meets the ball. The putter is drawn well back away from the ball before the stroke is made, this tending to prevent any jerkiness in striking the ball and to help to insure a true blow. The sound given by the ball when the head of the putter meets it is a good test of the accuracy of the stroke and of the trueness with which the ball is hit. The clean hit gives out a clear, sharp click.

In putting it is specially valuable to rest the club on the ground just behind the ball for a moment, before drawing it back for the stroke. the second speed the motor gives 600 revolutions (In putting it does not matter if the ball is touched, so that it is not moved, for this does not count as a stroke.) This is valuable in all golfing strokes, and the player should get into the habit of bringing his club-head close up to the ball, in all cases except in a bunker, where it is not permissible to " ground " the club. To lay the club-head back carelessly some inches from the ball is to neglect a valuable help to accurate work.

Most professional golfers play off the right leg and give a slight bend inward of the right knee just before drawing the club away from the ball. There is probably no virtue in this little trick, which has been derived by imitation from some famous player. Fifteen years ago most professionals used a wooden putter, and thirty years ago an iron putter was scarcely ever employed. A good deal may be said about the relative merits of iron or wooden putters. The wooden putter gives more elasticity to the ball than an iron one does and is the right putter to use for long putts; also when the green is rough or sandy, as it does not keep the ball so close to the ground as the iron club. The iron putter is the right one to use when the green is smooth, and also when the ball is near the hole, as the ball is less likely to jump the hole if the stroke is a little too strong.

Another style of putting is to have the ball about halfway between the two feet—a little nearer to the left foot. The player should look at right angles to the intended line of the putt. so that a line drawn from the toe of one boot to the toe of the other would be parallel to the line of the putt. The hands should be allowed to fall into a natural position, the putter being held with a light grip and rather short. The left elbow may be crooked a little to the front and the putter should be worked back and forth by the wrists. The player will find it easy then to keep his club moving over the true line in which the ball should be sent and so will be more likely to hit the ball correctly. If the player finds that he is putting regularly to the right or to the left of the hole, he should try to counteract this by changing the position of his feet. In a certain position he will naturally putt in a certain direction; so, if the position is right, the putt is naturally in the right direction. These methods fit equally well the holing-out putt or the approach putt. In the latter the attention should be devoted chiefly to the strength, for if this is pretty correct the line is not likely to be far astray. To hole out, the player should go behind the ball, so as to see the proper line to the hole, and, having settled on a blade of grass or a spot on the ground just in front of the ball, should keep his eye on that as he takes up his position for striking the ball. He should then place the club-head behind the ball and look at the hole to judge the necessary strength; then bring his eye back to the blade over which he intends the

ball to pass and back to the ball again. The last look, as he strikes, should be at the ball. He should not hurry to look away and see the ball going into the hole, for if he does so it will probably not find its way into the cup. In the approach-putt, most of the attention should be paid to the strength, the direction being comparatively easier to get. As a large proportion of approach shots are short, above all "Be up."

If a stimie has been laid, it is possible to play either round the ball or over it. If the balls are more than half a dozen inches apart and the one nearer the hole is two feet or more from it, the hole may be made in either way. If the balls are so close together that one can not be lofted over the other, the player must either slice his own ball round the other or hit it with force enough to send his opponent's ball over the cup and his own ball into it. If the opponent's ball is close to the cup and the player's ball is ten or more feet away, the only posible chance of making the hole is to slice the ball enough to curve it into the hole. This is, however, a very difficult shot.

In playing over a stimie, the more the face of the club used is laid back, the quicker loft can be communicated to the ball. A niblick makes the ball rise quickly but tends to pull it, while the lofter or mashie tend to slice it and send it to the right. The position is the same as when putting off the right leg, except that the right elbow is kept close to the body. The club is held with a loose grip in the fingers of the right hand, the left hand simply guiding it. The club-head is carried away from the body so as to get as much spin as possible on the ball and the swing is wholly with the arms. With the forward swing the ball is struck well under and, at the moment of impact, a sharp turn upward is given to the wrists.

If it is decided to play round the stimie, a cleek, putting-cleek or mid-iron is used. The same stance and swing are taken as for a cutting approach shot, but the ball is hit a trifle to the right of its center.

THE SLOOP "CHALLENGER," FLAGSHIP SAN FRANCISCO YACHT CLUB, 1904.

SAILS AND THE CARE OF THEM

COMPILED BY ARTHUR INKERSLEY.

ANY amount of skill and knowledge may be expended on the hull, spars, ballast and rigging of a yacht, but unless the material, cut and workmanship, the bending on and stretching of her sails and their dimensions receive equally careful attention, no satisfactory results will be produced For the first half of the last century the yachtsmen of Great Britain were content to rely on the skill of certain well-known sailmakers, whose names were held to guarantee that each sail was of the best material, the best shape and the best workmanship. If the sails of some fast yacht seemed to set unusually well and to enable her to point better than those of other craft, the result was ascribed to the superior skill and knowledge of her skipper and crew. No doubt, too, some of the skippers were well aware of the advantages of well-cut sails and took unusual pains to get them. But these did not feel bound to enlighten others or to give away the secret of their success. Whatever sound conclusions they had reached on the subject were kept for their own advantage and not published to the world. The general idea on the matter was to give a yacht good spars and plenty of muslin, trusting to her hull to do the rest.

In spite of their experience, which might have been expected to lead them to a different conclusion, the captains of yachts fell into the error of believing that the vessel carrying the greatest spread of canvas would be the fastest. In order to make the hull stand up under the enormous canvas-spread, shifting ballast was used and speed was, as it were, coaxed out of the yacht by a sort of jugglery. After a time, however, more attention was paid to the hulls of pleasure craft and theories were rife as to the effect of wave lines. Displacement was much thought about and beam was believed to be a hindrance to speed. The beam was narrowed and the consequent diminution of stability was remedied by making the vessels long and deep. Ballast was stowed low down and lead or iron keels and keelsons were adopted. The increased depth gave greater lateral resistance and enabled the boats to go to windward of the old beamy vessels. The narrowness of beam and great rise of floor reduced the transverse displacement and enabled them to beat the old-style craft in running. In fact, the only conditions under which the old vessels got the better of the new were a heavy sea and a gale of wind, when weatherliness compensated for slowness.

Then the old bluff bows, shaped like the head of a codfish, were discarded, sharp bows taking their place. It was found that, by increasing the draft of water and raking the sternpost, a vessel of low racing tonnage was obtained, with as much deck room, as big spars, and as great a canvas-spread as a vessel of much larger tonnage. The eagerness to cheat the measurement rules induced designers to sacrifice seaworthiness and many other good qualities of a vessel. Enormous clouds of muslin were carried aloft, tons of shot-bags were employed as shifting ballast and the spars were of huge dimensions. The new craft seemed to possess all the qualifications of a racing yacht. They had the least possible displacement, the highest stability and the greatest amount of the means of propulsion. They were small below the water and great aloft, and, though they did sail on their beam ends now and then, and were a little wet, these things were the necessary results of their high speed. It was not perceived that it was not the speed at which they sailed that made them wet, but the presence of huge, ill-fitting sails, which drove them into the seas instead of over them, their cut-away hulls lacking buoyancy and lifting power. Such yachts performed most brilliantly in smooth water and light winds; they sometimes behaved well in heavy weather, but this was not due to their own ability but to splendid seamanship and daring. They worked their way from one port to another under storm canvas, while their owners journeyed in first-class carriages on the railroad, contenting themselves with an occasional cruise on a beautiful summer's day.

SLOOP "SPEEDWELL," FLAGSHIP CORINTHIAN YACHT CLUB.

This system of building and sailing yachts drives men who are genuine sailors from trying to win yachting trophies, which can only be captured by freakish craft unsuited for all-around deep sea cruising, in fair weather and foul. Yacht-builders should not be tempted (almost compelled) to construct craft that lack comfort and seagoing ability, these being sacrificed to speed.

Early in the year 1851 rumors reached Great Britain that a yacht was being built in New York which would be brought across the Atlan-

tic to sail in some British regattas. On the fifteenth of March of that year a sketch of the yacht was published in the Illustrated London News. The lines of the craft were so new and so opposed to the ideas of British yacht designers that they were disposed to make light of her and even to doubt whether she would really cross the ocean at all. But in June news came that she had sailed from New York, had crossed the Atlantic and was anchored in the port of Havre.

On Thursday, July 31, 1851, the schooner yacht America first appeared in British waters, where she excited great attention. A veteran yachtsman, after seeing her, came to the conclusion that, if the America was built on the right principles to secure speed, British designers were all wrong. It was at first supposed that the secret of the America's speed was in the shape of her under-body. Her long, sharp entrance, with upper works flaring out, gave the impression of a big hollow in her forward lines, and her upright sternpost was not in conformity with the British practice. After the America's victory many well-known yachts were deprived of the "cod's head" and fitted with the American bow.

The America's canvas, too, attracted much attention, British yachtsmen admitting that sails of such material and cut, and standing so flat, had never been seen before.

On the run the America did not show so much superiority to other yachts, but on the wind she pointed high and footed fast. A well-known English yachting writer says that the success of the America is to be attributed to the application of practical experience to every detail of construction of the hull, so as to combine all the essential elements of speed and weatherliness; and to the fact that the hull was fitted with means of propulsion adapted to secure the greatest effectiveness. The sails of the America were of excellent material, beautifully proportioned and cut. It was said that the material of her sails was more like veneer-board than canvas. Another important matter, highly conducive to the America's victory, was the proper adjustment of her displacement and driving power, to which great attention has been paid by her designers.

During the last half century, the canvas for the sails of yachts has been manufactured with great care and the result has been the production of a more closely-woven and stronger material than had been used previously. It is a great mistake to economize in the quality of the material of which the sails of a yacht are made, for the cost of making is the same whether the material is good or bad, and, while poor canvas will soon pull out of shape or wear out, good material, well cut and made up, with reasonable care will give long and satisfactory service.

Canvas is manufactured of different degrees of weight and strength, according to the dimensions and situation of the sails to be made of it, the weight and strength being denoted by numbers. Formerly the average width of canvas was twenty-four inches, but now it can be obtained in several smaller widths and manufactured to order in any width. Flax canvas should

W. W. Richards, Photo J. R. HANIFY'S SCHOONER "MARTHA."

be made of the best long flax, fresh and clean, free from tow, lumps or patches; the yarns should be evenly spun and firmly twisted. The woof yarns should be of the same substance as the warp yarns, and both should be woven very closely. The canvas should present an even, regular and close appearance; when held up to the light it should not look cloudy, with spots of light and patches of darkness running through it, for if it does it has not the proper material in it and is not well woven. Threads a foot or two long should be taken out of the warp and the woof of each sample and the strength of each be tested by snapping with the fingers. Strips of the same length and width should be cut from samples which it is desired to compare, two in the direction of the warp and two in the direction of the woof; weights are then attached and the strain that each strip will stand before breaking is observed. Or holes may be bored with a fid into the canvas; if the threads break easily while this is being done, the material is poor.

For canvas must not only be manufactured of good material, but must also be well woven, or it will stretch in such a way as to render the skill of the most accomplished sailmaker unavailing. No matter how skillfully the sails may have been cut and sewn, as soon as they are exposed to the violence of wind and weather they will never set well. Canvas well woven of poor material is not trustworthy, for it will stretch badly, and in heavy weather, when the safety of the vessel and those aboard may depend on working off a lee shore, the sails may split up or across, or be blown away altogether.

Good cut and flat set are the qualities desired in sails, and these are impossible if the canvas is not of good material and well woven. The canvas, too, should be impervious to the wind, as otherwise the full propelling power is not obtained. Canvas should be woven so closely that, when held up to the light, it looks like horn. It should not stretch much, for if it does, it is weak, lets the wind through it, and will soon lose its shape.

The America's sails were made of cotton canvas, twenty-two inches wide, but in the middle of each cloth a false seam was woven, to give it rigidity, so that each cloth was, in effect, only eleven inches wide. The hindrance that would be offered to the wind in passing along the sail by sewn seams at intervals of eleven inches was thus avoided, and great rigidity and flatness were secured.

W. W. Richards, Photo F. GUTTE'S SCHOONER "CHISPA."

Cotton cloth is a beautiful material and is lighter than flax canvas of the same substance, but it is not so strong or durable and is somewhat liable to mildew, though this depends much on the care and treatment it receives. Sails should not, when wet, be made up into a hard furl and left; they should be made up loose, so as to let as much air as possible through them, and at the first opportunity should be shaken out to dry and air. In fact, even if it rains, it is better to keep sails that are wet hoisted than to stow them; for it is the stowing of them when damp that produces mildew. As long as a sail is exposed freely to the air, whether wet or not, there is little fear of mildew.

THE first regular regatta for power-boats and auto-launches ever held on the Bay of San Francisco took place on Sunday, May 22, over a course of about two miles, off Paradise Cove. The course was across a starting line near shore to and around F. A. Robbins' launch Rob Roy, anchored about one mile in a northwesterly direction, and back across the starting line. The following craft took part in the race: J. Gillmaker's Hulda, J. H. Cochrane's Skip, L. C. Pistolesi's Sequoia, D. Miller's Kittie M., and the Bear Flag. The launches Sequoia and Skip kept close together all round the course, Sequoia just crossing the line first. As, however, Sequoia is a considerably larger and more powerfully engined craft than Skip, the regatta committee, after careful calculation of the time allowance, awarded first prize to Skip. Though five entries do not constitute a large list, especially as there are fifteen or sixteen power-boats on the roll of the San Francisco Yacht Club alone, without reckoning those that belong to other clubs, the event was considered successful and served to inaugurate power-boat racing on the Bay of San Francisco. On October 9, when the winds will have died down and smooth water is almost certain to be found, a second regatta will be held by the San Francisco Yacht Club and will, no doubt, attract more competition.

The regatta committee, consisting of ex-Commodore R. S. Bridgman, Roy C. Ward and C. M. Gunn, adopted the rules of the American Power-Boat Association for measuring the craft and calculating the time allowances. According to these rules boats are rated for classification and time allowance by a rating determined by taking fifteen times the cube root of the square root of the load water line, multiplied by the horsepower and divided by the area of the midship section. Load water line is the distance in a straight line between the points furthest forward and aft where the hull, exclusive of the rudder-stock, is intersected by the surface of the water, when the boat is floating in racing trim in smooth water, with two persons aboard, stationed amidships when the measurement is being taken. If any part of the stern, sternpost or other part of the boat below the water-line projects beyond the length thus measured, such projection shall be added to the measured length, and a form resulting from the cutting away of the fair line of the stern, sternpost or the ridge of the counter, for the apparent purpose of shortening the load water-line, shall be measured between fair lines.

Midship section in square feet is obtained thus —with the boat in the same trim as when being measured for load water-line length, take the beam (B) of the boat at the water surface at a point 55 per cent. from the forward end of the load water-line; divide B into five equal parts or stations, and at the first inboard station from either end measure the perpendicular from the water surface down to the under side of the boat's planking (C). C multiplied by B gives the midship section. If the measurement for C is taken inside the hull, the thickness of the planking of the boat must be added, allowance being made for the angle at which C intersects the bottom planking.

"WHITE" DELIVERY WAGON.

The horsepower of gasoline explosive engines is calculated in the following manner: Multiply A, the area of one piston in square inches, by the number (N) of cylinders, multiplied by the stroke (S) in feet, multiplied by the number of revolutions (R) per minute, and divided by a constant (C) of 1,000 for four-cylinder engines, or 900 for two-cylinder engines. H. P. equals A multiplied by N multiplied by S multiplied by R, divided by C. R is to be taken from the owner's written certificate, which is subject to verification by the measurer. No wonder the spare time for a week of the members of the regatta committee was necessary to make the above elaborate calculations.

Many large electric automobiles have been provided to convey visitors to the World's Fair about the grounds. They move slowly along the broad walks and afford an opportunity of getting a comprehensive view of the buildings and grounds in a comfortable and economical manner. Many motor-boats, also propelled by electricity, ply on the lagoons in the fair grounds. These electric launches were built by the Truscott Company of St. Joseph, Mich., the motors and controllers being supplied by the Hertner Electric Company of Cleveland, O. They are of almost exactly the same type as those built for use in automobiles. Each is of 2½ horsepower, with three forward speeds and two reverse. At the second speed the motor gives 600 revolutions per minute, which produce a speed of about 4½

miles an hour. On a spurt a speed of about 6½ miles an hour may be attained.

Automobile owners who wish to use their own cars in the Exposition grounds may do so on payment of an admission fee of fifty cents for the car. They may drive over all the thoroughfares except a few that are reserved for pedestrians. Automobilists who do not live in St. Louis can get a special license on payment of a fee of $5.50 to the license collector, who issues a number plate similar to that used by residents. The figures on the plate are white on a red ground, the word "visitor" appearing instead of the date. When the visitor returns home he turns in the license plate and gets back five dollars, so that the cost of the temporary permit is only fifty cents, the regular license fee being ten dollars. Miss Helen Gould has secured license No. 1.

The tour of the American Automobile Association to St. Louis takes place in July. During the stay of the tourists at the fair all regulations regarding licenses will be suspended, so that the visitors may be put to as little inconvenience as possible. A route book has been compiled and distributed among the clubs and manufacturers. Great preparations have been made to take care of the visitors' automobiles, several new garages having been built.

The new factory of Smith & Mabley at the foot of East Eighty-third street, New York, shows great activity in the construction of motor-boats. The motors of all sizes are very light in weight and of high speed, being designed in all respects like those for automobiles.

What the Gordon Bennett cup is to automobiling on land the Harmsworth cup is to motoring on the water. Great Britain, having lost the Gordon Bennett cup, is making great efforts to retain possession of the Harmsworth cup, which she won at Queenstown last year. The Gaston Menier cup is also held in Great Britain and will be defended during the coming season. Napier auto-boats will be used in the defense of both trophies. An elaborate series of model experiments has been undertaken with the view of securing a form of hull that will be superior to all competition. In the construction of the hull and the propelling machinery all that science and art can suggest will be done. The details of the machinery have been worked out in the Napier factory and the hull has been put into the hands of the Yarrow firm of torpedo boat builders. Model experiments to ascertain the form of hull for a proposed vessel are regularly made, especially where the conditions of service are different from those usually found. The United States Navy Department conducts experiments of this sort at Washington, but employs only wax or wooden models of comparatively small size. These models are floated in a large tank of still water and, attached to a movable carriage over the tank, are drawn through the water at various speeds, the resistance of each model being measured by a traction dynamometer on the carriage. Instruments operated by electricity and by clockwork give a permanent record of the resistance at the various speeds. The model used represents in form the proposed vessel on a small scale and the speeds at which it is run bear a certain relation to the speed of the proposed vessel.

There are certain limitations to the value of the practical results that can be obtained from tank experiments of this sort. The conditions of a tank and of free open water are evidently unlike; a boat can not be run for any considerable distance at high speed in a tank. The Yarrows have, therefore, conducted the trials

Rockett, Photo C. C. EIB CLIMBING HILL.

with full-sized models in the sea under conditions of wind and tide similar to those that the Napier boat will encounter in the race for the cup. This is rendered possible by the comparatively small size and cost of the automobile boat.

In making the trials a turbine engine torpedo boat of very high speed was used. The full-sized models were made fast to a boom rigged on the starboard side of the torpedo boat aft of the turtle back. The outward end of the boom was made fast to the bowsprit of the model and the inboard end was connected with the dynamometer which recorded the pull needed to tow the model. The boom stretched out from the torpedo boat far enough to keep the model unaffected by the disturbance created by the passage of the former through the water. The position of the model made it possible to observe its behavior at any desired speed from a comfortable position on the larger boat and to obtain a photographic record of the trials in smooth and rough water.

One model gave beautiful results at high speed in smooth water but in rough showed defects that demonstrated her unsuitability for a racing boat, which must be prepared to face weather of any kind. Another model while at rest or at low speed showed good results, but when towed at considerable speed, generated a huge bow wave that would have drenched any occupants of the boat and have made it hard for the steersman to see. Another model performed most satisfactorily at high speed, making very little fuss when being towed through the water at a speed of nearly twenty-nine miles per hour, the bow wave being small, the run from the stern very clean and the tendency to squat slight.

Yet even these elaborate experiments give merely the towing resistance and not the actual resistance, which is much modified by the interaction between the boat and her propeller. Possibly experiments may be made in which the effect of the propeller will be observable, though the mechanical difficulty of doing this is considerable. The builders may wait until the actual boat is finished and then hold a series of trials with various propellers and at different speeds, the cost of duplicate wheels for an auto-boat not being very great.

NORTHWEST DEPARTMENT

Devoted to Sport in Washington and British Columbia. Conducted by F. M. Kelly.

But, up to the mountains!
This is not hunter's language:—he that strikes
The venison first, shall be lord o' the feast.
—Cymbeline.

THERE will be a dearth of salmon in the Northwest this season, the canners preparing for but a one-third pack; and many of the larger establishments will not put up any fish at all, remaining closed throughout the year.

The question of the propagation of this valuable food fish is beginning to cause very serious consideration among the canners and others interested, and the report of J. P. Babcock, Fisheries Commissioner of British Columbia, to the government, shows a truly serious condition and urges immediate action if the industry is to be conserved. Mr. Babcock emphatically states that the industry will be seriously crippled if immediate steps are not taken to curtail the unrestricted taking of the fish before they reach the spawning grounds. Close investigation of the fishing area during the past five years enables Mr. Babcock to speak with authority, and when he says that seventy-five per cent. of the spawning grounds were barren last year, that should be sufficient warrant for the governments of Washington and British Columbia to enact such legislation as will give the salmon a chance to increase. To the attitude of the State of Washington, Mr. Babcock attributes the great decrease in the number of fish. The greatest movement of "sockeyes" seeking entrance to the Fraser River is through the American channels of Puget Sound, and that the scarcity of spawning fish in the Fraser is due to the facts that there are no limitations set to the taking of fish there, nor is there any closed season. In British Columbia no fish can be taken before July 1st, and every week there is a closed season of thirty-six hours, giving the fish some chance to get up river.

If restrictions governing the fishing were enacted in Washington, further restrictions would be enacted in British Columbia. It is hardly right for the latter government, however, to place further restrictions on their own people, when the burden of maintaining hatcheries and experts is already upon them, and give the unrestricted canners of Washington greater opportunities to get the bulk of the fish they hatch.

What strikes one with wonder is that even twenty-five per cent. of a run should get to the spawning grounds, when one considers the number of traps, nets, etc., the fish have to escape on their way to them. In past seasons as many as five thousand boats have been engaged off the Fraser, and in the Puget Sound district as many as two hundred traps, a thousand gill, set and purse nets, and one hundred and thirty drag seines were in use.

Mr. Babcock says: "If the decline in this fishery is due to excessive fishing, the censure for it rests upon the State of Washington, as the unbridled fishing conducted in her waters is indefensible and unjustifiable, and if continued will wipe out the salmon industry in these waters."

It is to be hoped that some energetic steps will be taken in the near future, tending to some permanent and far-reaching agreement between the Province of British Columbia, the Dominion government, and the State of Washington, whereby the conservation of the salmon will be assured.

* * *

Game Warden Rief has certainly been doing yeoman service in the interests of fish preservation in his district, and while he undoubtedly has been execrated by certain and sundry individuals in the vicinity of Green Lake, the great majority of sportsmen all over the country do and will appreciate his work in behalf of the guild. The anglers of Green Lake were very wroth when Mr. Rief threatened them with prosecution if they did not desist from fishing, saying many unkind things about the gentleman, but he remained firm, and when they insisted that they had a right to fish the lake for perch, he threatened to have it stocked with all kinds of fish, closing it entirely for three more years, or until 1908, whereupon a small paper, the organ of the Green Lake folk, stated that the game warden was a czar. That might mean a whole lot; but from the tone of the article it meant that Game Warden Rief is the embodiment of all that is bad in one having power, that he has a giant's strength, using it like a giant, tyrannously. All of which, no doubt, caused Mr. Rief to smile. The writer of the article, however, overlooked, in his condemnatory zeal, the fact that a man might still have the power of a czar, or a giant, and not abuse it, molding his own liberal ideas with those of other liberal-minded persons for the benefit of the country at large. In that sense, all true sportsmen will join me in wishing "Long life to Czar Rief. As long as the work of the Czar is good, long live the Czar!"

* * *

For several months the dog-poisoner played his nefarious game in and around Victoria, a number of valuable dogs falling victims to his viciousness. Owing to the unprecedented number of dogs poisoned, the S. P. C. A. took a hand and offered a reward of fifty dollars for information which would lead to a conviction.

The Criminal Code of British Columbia says: "Every one is guilty of an offense, and liable on summary conviction to a penalty not exceeding $100 over and above the amount of injury done, or to three months' imprisonment with or without hard labor, who willfully kills, maims, wounds, poisons or injures any dog, bird, beast or other domesticated animal." And section 4 of the Poison Act reads: "Every person who shall place any poison outside of his own building or outbuilding, or upon any land possessed by him, for the destruction of noxious animals, or for any purpose whatever, shall give notice to all persons or families residing within two miles of the place where such poison is placed,

by posting notices in five of the most public places within two miles of where said poison is to be put out, and said notices shall be posted for at least twenty-four hours before the setting out of any poison."

* * *

Under the aforementioned act, Robert Erskine, a grocer of Victoria, was arrested, charged with laying poison on his premises and with poisoning several dogs. At his preliminary hearing, the offender pleaded guilty to laying the poison, but denied poisoning the dogs. When the hearings were concluded, the magistrate reserved his decision, giving it later. He dismissed the charges of dog poisoning, pointing out that while there was a probability of the dogs having taken the poison on the prisoner's premises, it was possible that it was swallowed somewhere else. It takes a man with unique reasoning ability to perform the functions of a police magistrate. Under the circumstances he did not feel justified in convicting the man at the bar, though he admitted that a jury might take a different view of the matter. Why should they, if he was right? If he thought a jury would convict the man, he must have had an idea that he was guilty. For laying the poison, the magistrate fined Mr. Erskine $25.

* * *

Acting on information laid by Secretary Musgrave of the Vancouver Island Fish and Game Club, early in May Sergeant Redgrave of the Victoria police visited the New England Hotel and seized two tubs of grouse. The proprietors of the hotel were summoned to appear before the magistrate to answer to the charge of having game in their possession out of season, and were convicted, being fined fifty dollars. In the police court, Sergeant Redgrave swore that on May 4 he entered the New England armed with a search warrant and there found two tubs of grouse. He removed them to the police station. One of the proprietors admitted to him that the contents were grouse, but said they had been purchased in the open season. To the magistrate Mr. Young stated that the grouse were secured last fall, when they were particularly plentiful. Having obtained a greater supply than the market required, he had preserved the surplus in lard, as a business man would naturally do. He considered it wrong to throw away goods because one had more than the market demanded. Grouse were merchandise, and every merchant would do as he had done. They must be considered in exactly the same light as goods in a store. If such a prosecution was upheld by the court, it would mean the prevention of an industry which might be established, for the sake of pleasing a few. The magistrate contended that the lawmakers did not intend that such an industry should be established, for it would mean the extermination of game. Mr. Young disagreed, claiming that grouse would not be exterminated in a hundred years. The magistrate, however, adjudged him guilty, explaining that had he kept the game which he had secured in the open season for the private use of his family he would not have violated the law, but he had no right to sell it to his customers. The section of the game act dealing with the above case is as follows: "No person shall buy or sell, or have in his or her possession, any of the said animals or birds, or any part or portion of any such animals or birds, during the period in which they are so protected; provided always, that if lawfully killed and obtained, they may be exposed for sale for five days, and no longer, immediately after the commencement of such periods of protection, and may be had in possession for the private use of the owner and his family at any time, but in all cases, the proof of the time of killing, taking or purchasing shall be upon the party in possession."

After his conviction, Mr. Young requested the return of the grouse, but the magistrate ordered that they be divided between the Orphanage and Hospital. We can imagine that Mr. Young is now a sincere believer in a certain old saw which states that "A bird in the hand is worth more than two in the bush."

* * *

NOTES.

Under the amendment to the British Columbia Game Act passed last session, the Lieutenant-Governor in Council has declared a closed season for elk in the County of Kootenay for three years, beginning on May 16 last.

* * *

In the open shoot held at Victoria on May 23, under the auspices of the Victoria Gun Club, Seattle shots had it pretty much their own way, carrying off all first money. The first contest, fifteen singles, known traps, unknown angles, was won by E. E. Ellis, Seattle, who made the possible. Dr. Steele and J. I. McLaughlin, Seattle, and C. W. Minor, Victoria, tied for second place, with scores of 14. The team shoot was won by Messrs. Ellis and McLaughlin, with scores of 18, Messrs. Steele, Minor and Henly being second with 17. Known traps, unknown angles: In the four-men team shoot, Seattle again led, scoring 85, Victoria's leading team following with 75. The twenty singles, known traps, unknown angles, went to William Stewart, Seattle, with 19, E. Ellis and J. McLaughlin tieing for second place with 18. In the twenty singles, ten unknown angles, known traps, and ten unknown angles, reverse traps, Otto Weiler, Victoria, and Dr. Steele tied for first money, scoring 17. C. W. Minor won second with 16. The grand average placed E. Ellis first, Dr. Steele second and J. McLaughlin and William Stewart third. The consolation match for shots who had shot in two or more events but had not divided any money, was won by R. Jackson with 14 out of 15.

* * *

Devotees of the gun in Bellingham have organized a club. Several splendid trophies have been secured, and as there are a number of really good shots enrolled in the list of members, keen competition for their possession is assured.

* * *

As an experiment, the Vancouver Island Fish and Game Club have decided to distribute 250,000 fry in waters easily reached from Victoria. Some will go to the lakes of the Highland district, some to Shawnigan, and a number to the Cowichan River. Sooke Lake will also receive some attention. While this latter lake is by no means fished out, the trout there are very small, and the club officials think that the introduction of larger fish would tend to increase the general size in future years.

* * *

On Saturday, May 7, Miss Jessamine Garrett won the Judith Minor cup in the handicap tour-

nament at the Seattle Golf and Country Club grounds, Lake Washington. Over a twelve-hole course her score was 72, and as she had been allowed a handicap of 6, her net score was 66. The second prize, a driver, was won by Miss Ethel Garrett with a score of 67, playing from scratch. The Hansen cup was won by J. Gillison Jr. with a gross score of 84, over the full eighteen-hole course. Having a handicap of 10, his net score was 74. F. C. Newton, scratch; Grosvenor Folsom, F. K. Struve and E. W. Andrews tied with net scores of 78 for second prize, a pewter stein. Miss Garrett and Mr. Gillison are entitled to retain their trophies for six months, when they must be played for again.

* * *

Golf enthusiasts of Port Townsend recently formed a club there, the officers being Lieutenant A. B. Wyckoff, president; Henry Blackwood, secretary and treasurer; Dr. J. H. Oakley, trustee.

* * *

The Bellingham Golf Club have elected the following officers for '04: President, C. B. Zabriski; vice-president, Mrs. Edward C. Fisher; secretary, W. Carey Hay.

* * *

In the finals for the Seattle Golf Club championship, F. C. Newton beat E. A. Strout on May 21 by a score of 10 up and 8 to play.

* * *

The links of the Spokane Country Club are about completed, and when finished will rank with any in the West. A palatial clubhouse is being erected and the members have secured the services of a competent instructor, Mr. L. S. Jacobs of Victoria, B. C.

* * *

Secretary Pearce reckons that between forty and fifty boats will take part in the Northwest International meet. The Victoria Yacht Club is sparing no effort to make it a success; and it is almost safe to predict that the races of July 2 and 4 will go down in Northwest yachting history among the most successful in the annals of the association.

* * *

Vice-Commodore Hodson, Vancouver Yacht Club, has put the Wideawake in good condition for the races. She has been well tuned up, and skipper and crew will do their best to get her over the line first in her class.

* * *

The new racing craft built by the Johnson Brothers, Seattle, and the Madeline, a fast type of fair-weather boat, owned by Captain Griffiths, Seattle, will sail a race from Seattle to Victoria, eighty miles, arriving at the latter place in time for the regatta. They will race for $50.

* * *

The boats of the Vancouver Yacht Club held their first cruise of the season on May 24th. A large number were under way, and the boys didn't do a thing but have a good time. The rendezvous was Deep Cove, Bowen Island.

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Mr. H. N. Frith, Vancouver Yacht Club, has purchased the Redskin, the speedy one-design, from Captain Bowdler, formerly of the Victoria Yacht Club, but now sojourning in the East.

* * *

Captain Cuppage and a party of friends cruised to Bellingham on the Gwenol during the latter part of May.

* * *

The pioneer cruiser in Northwestern waters for '04 was the big sloop Dawendeena of Vancouver, B. C., Captain O. Neoseley, which cruised for a couple of weeks during the beginning of May, touching at Victoria and Nanaimo.

* * *

Through the capsizing of a small yacht on Burrard Inlet, Vancouver, W. Gosselin lost his life. He and another, Geoffrey Turner, were sailing, when a squall suddenly turned their boat over. They clung to the bottom for some time. At length Gosselin attempted to swim to the shore, some little distance away, but ere he went twenty yards he was seized with a cramp and went down. Turner remained with the boat for nearly three hours, and was in an exhausted condition when he was rescued by a passing steamer.

* * *

In a lively southwest wind the one-design boats of the Victoria Yacht Club held their first race on the afternoon of May 14. Throughout the race was splendidly contested; and at the finish there was but a second between the two leading boats. The Marietta crossed the line at 4:41:10, and the Aloha at 4:41:11. At the stick of the Marietta was Lieutenant French, while C. W. McIntosh sailed the Aloha. On May 21 the club held its initial race for all boats. The wind was pretty stiff, about thirty-five miles an hour, and from the southwest. The course was triangular, six miles to the finish. But four boats started: the Gwenol and Whitecap in A Class, and the Dione and the Marietta in B. In the larger class the Gwenol took first, the Whitecap withdrawing early in the race. The Dione was an easy winner in B. Class.

* * *

For the purpose of discussing the feasibility of organizing a North Pacific Lawn Tennis Association, members of the Seattle, Tacoma, Portland, Vancouver and Victoria tennis clubs, met in Tacoma early in May. A temporary constitution was drawn up and ordered forwarded to all the clubs it is proposed to include. If three of these agree to the regulations as drafted they will be adopted. Something like the above has been a necessity in the past, and will put the game on a much more satisfactory basis in the future. Each year there will be a recognized championship tournament, the winners of which will be acknowledged champions of the Northwest. These will take place in the different cities included in the association, and in an order to be agreed upon.

* * *

The Victoria Lawn Tennis Club hold their open tournament commencing the first of August. Vancouver will follow the next week, with Seattle and Tacoma next in the order stated. Portland will bring the Northwest Coast circuit tournaments to a close.

H. L. Betten, Editor.

"The poor dog, in life the firmest friend,
The first to welcome, foremost to defend,
Whose honest heart is still his master's own,
Who labors, fights, lives, breathes for him alone."
—Byron.

THE TRAINING OF THE FIELD DOG.

No. 14.—Preparation for Field Trials.

THE field-trial dog is a canine athlete, trained to the minute for competition of an arduous nature. In order to compete on an equality with his rivals his condition must be brought to the highest point of perfection, and this can be accomplished only by a systematic course of carefully graduated exercises which develop to their utmost such qualities as speed, independence, stamina and decisiveness. In addition the work to which a field-trial dog is subjected must be of such a nature that he is brought under control without suffering the deleterious effects of cramping or rapid, harsh methods of subjugation.

Contrary to popular opinion the handling of dogs in field-trial competition calls for no unusual qualifications on the part of the handler, providing always that the preparatory work has been applied in a skillful manner. Once the dog is cast off in competition, he must depend on his own ability and not that of the trainer in order to secure recognition from the judge. Of course there are times when a dog may be aided to some extent by the handler, but such instances are the exception and not the rule. Furthermore, opportunities to resort to trickery are seldom afforded the handler who endeavors to gain honors by ulterior means. The field-trial judge is keenly alert to all that transpires during the competitions and it is safe to say that the handler who practices deceit will gain absolutely nothing thereby, if indeed he does not lower the standing of his dogs in the judge's estimation.

Thorough preparation is of the utmost importance, for when in field-trial competition the dog is sure to reveal shortcomings in training and in natural ability. Errors and faults which may be condoned in the ordinary shooting dog can not be overlooked in the field-trial dog, and one will be surprised to note in what a mediocre fashion the average dog performs when placed under the lime-light of competitive tests. The shooting dog which is characterized as a "wonder" on his native heath, and which is said to be "streets ahead" of anything seen at trials, rarely makes a creditable showing when in competition with the best field-trial dogs. The reasons for his failure are obvious. To begin with, he is used without any special attention to condition, and is hunted for hours at a time which causes him to work at a conservative gait. Constant use may have blunted the edge of enthusiasm, and he is very apt to show a lack of interest in hunting which is fatal to his chances in field-trial competition. Faults such as unsteadiness and over-cautiousness may have been condoned so long as they did not curtail the opportunities to shoot, and consequently

HAS TROUBLES AHEAD.

STRONG SCENT.

the dog appears to poor advantage when running with a competitor whose training is perfect. An undue desire to retrieve may cause the dog to work too close to the gun, or the unceasing round of orders to which amateur handlers are prone to give vent may curtail his range and independence; or a change to strange grounds where he is obliged to compete among unusual conditions may have the same effect. It is almost impossible to gauge the relative ability of two dogs, one of which hunts over grounds and under conditions with which it is thoroughly familiar, while the other is obliged to compete under disadvantageous conditions and divide the opportunities with a competitor of equal or superior condition. We all have seen our dogs run in a flawless or seemingly flawless manner at certain times and those isolated perfect performances are apt to remain sharply defined while the many mediocre exhibitions are forgotten. Field trials deal with actual performances and not with what has been or might have been. It is probable that while a very few competitors run up to their best form, or even exceed their best efforts in training, the vast majority fall far short of their standard; and noting various shortcomings, and without making allowances for divergent and unfavorable conditions, the average sportsman who first views trials is apt to carry away with him an unfavorable impression of the competitors.

The chief advantage the professional field-trial handler possesses over the amateur handler lies in his superior ability in developing desirable qualities and eliminating faults. His great experience in such matters combined with his adaptability to all conditions and his knowledge of the requirements of a high-class field-trial dog give him a decided advantage over the amateur who often labors in the dark. Another great advantage lies in the fact that he seldom hampers his dog when at work in the field, allowing him to acquire experience and develop his natural qualities without the restraint which beginners consider so necessary. Beyond exacting absolute steadiness on point and back, and curbing self-hunting proclivities where they become too pronounced, the dog is left much to his own resources. Obedience to the whistle is also exacted, but that instrument is reverted to as seldom as possible, in fact the skillful handler may not have recourse to it once during the competition. George E. Gray, one of the most successful of American handlers, is a notable exponent of quiet handling; so much so, in fact, that he has earned for himself the sobriquet "The Silent Man." Gray's dogs were brought to the start trained to the minute, and when cast off virtually handled themselves.

The desirability of pursuing such a course will be readily seen, as methods which permit a dog to think for himself and act without undue restraint are sure to yield the best results. The dog which must be coached in his work is at a great disadvantage, no matter how acute the senses of his handler. He becomes a mere automaton, and the very qualities which field-trial judges

W. W. TITUS' "MARSE BEN."

A DERBY PROSPECT.

are pleased to see intensified to the highest degree soon become decadent.

When conditioning a dog for field-trial competition make it a rule to work him not more than one hour every other day at the commencement, and gradually increase the periods to two hours. If you have but one or two dogs in preparation for trials, it is advisable to commence with hourly exercises morning and evening instead of compelling a dog to run the full two hours, as by so doing you can keep him keyed to a higher pitch and he will exhibit more dash and enthusiasm than would be the case if he were compelled to run longer periods. The average duration of a field-trial heat is not over 45 minutes, and during that time the dog should strike a gait which experience teaches him can be continued without diminuation to the end of the heat. If the dog lacks in his knowledge of game it is well to work him during the cooler hours, so that scenting conditions may favor him in his search. When he gains in experience vary the hours of training so that he will become accustomed to all conditions. It is a mistake to accustom a dog to work only under the most favorable conditions, as likely as not he will be drawn to run at an unfavorable hour, and if he has not been accustomed to run at such times is apt to make a poor showing indeed.

Avoid overwork, and graduate the exercises so that the dog's interest in his work is always maintained. If he is worked two hours at a time, or one hour morning and evening, it is advisable to allow him to rest every third day or even every other day a week or so before the trials. Individuals vary so much that no hard and fast rule can be applied to all alike; some are benefited by work continued unremittingly for a long period of days, while others become stale and lose interest in their work unless allowed to rest at regular intervals.

If possible work your dog in company with another at least occasionally, so that he may be accustomed to competition and be enabled to deport himself in a proper manner when cast off with a brace mate in field trials. Should he lack independence he will likely be benefited by association with a dog possessing that quality and thus encouraged to range out wider than usual, but there is often a limit to the benefits received by such association, and when it is noticed that instead of making casts independent of his brace mate your dog is inclined to trail him, you should continue to run him alone a goodly part of the time.

Inasmuch as physicial condition counts for so much in field-trial competition, you should see to it that your dog is properly fed. Provide an abundance of meat both raw and cooked; lean beef and mutton is the most palatable and nourishing. When fed in the raw state have it minced or chopped and fed in small dabs. In this manner the gastric juices are permitted to work upon it without hindrance, and digestion is easy. It may also be fed in strips held in the hand, the dog being allowed to tear off only small bits instead of bolting large pieces, as he would do if permitted. When fed in a cooked state, meat is

"SHE'S GOT THEM!"

"SOUSA" ON POINT.

best boiled until tender, when it may be fed in connection with old bread, crackers, rice or barley, the broth being used to moisten the crackers, bread, etc. Vegetables should be fed occasionally, say twice a week. Spratt's greyhound biscuits, which contain a large proportion of meat, form a valuable adjunct to the trainer's food supply, and may be used in place of other food for the morning meal. When feeding twice each day the main meal is given in the evening, less than half the quantity being fed in the morning. By thus dividing the amount of food which otherwise would be given in the evening, you avoid overloading your dog's stomach, and no deleterious effects will be noted from feeding in the morning unless the dog is exercised immediately thereafter and the quantity of food is large. The old theory that in order to run at his best a dog's stomach should be empty should not influence the handler one particle. There is, however, a vast difference between allowing a dog to eat to repletion and giving him only a light repast. One greyhound biscuit or a small amount of raw chopped beef will do much toward satisfying the cravings of an empty stomach and will not cause the dog to be "off in nose." It is only when food is partaken of in extra large quantities and commences to ferment that the failure of the olfactory powers may be traced directly to the stomach.

Having conditioned your dog in a manner which preserves intact his dash and enthusiasm, and brought him under proper control, you need not fear to start him in trials simply because you lack experience in matters pertaining to field-trial competition. If your dog has been properly developed he will show the results of your work, and all will then depend upon his natural qualifications. If he has not been properly developed, there is nothing you or any other person can do to contribute toward his success. The moment he is cast off in competition he must stand upon his own merits and you are powerless to aid him.

When you cast off your dog be careful to follow the direction of the judge and keep your eyes on him instead of the other handler candidate. When your dog comes to a point make your claim of "Point, judge." Never mind the other man's dog. You will find that he is able to take care of himself. Don't become vociferous, but keep your eyes open and your mouth shut. If your dog commits flagrant errors, don't commence to apply violent correctives before your audience. The chances are that if he needs correction at such a late moment he will not be benefited in time to overcome his previous lack of training before the trials end. If you note that a bevy has been scattered in nice cover, and the judge has ordered the dogs to be worked on them, do not be overcome by your deference for the other handler, but send your dog in their direction as soon as possible and allow him to begin operations.

There is little else to say in regard to field-trial competition. Advice is easily given, but experience is the best teacher and attendance at one meet will open your eyes to more than can be gleaned from all written instructions combined. Suffice to say, a man of average intelligence can handle a properly developed field-trial dog in trials by letting him alone. A corps of the best handlers in America could not secure satisfactory results if he was not properly developed.

"DOC."

By Katherine March Chase.

HE WAS a beautiful red Irish setter, with long silky ears, lovely brown eyes and owning a pedigree as long as "from here to yonder"; and because a doctor gave him to the boy we named him "Doc." A mere baby he was when we got him—such a helpless, wobbly thing, crying like bed-hating babies the world over when we tucked him up in a box in the woodshed. And in the mornings, long before we thought it time to get up, he would sob and whine and howl until my heart ached for him so that I was obliged to get up and bring him in the house and feed him.

He was "little and homesick looking," as the boy expressed it; and the boy's heart was so filled with pity for him, "because he was away from his mother," that he devised many ways and means to his comfort, one being the surreptitious manufacture of "sugar tits," such as he had heard of folks giving to babies!

One day I discovered him in this act of "comforting" and have never fully recovered from the fit of laughter I had over the comical sight of that, for the present, supremely contented tho' motherless baby dog sucking that bit of rag which had tied up in it a little bread and sugar, and which had been dipped in warm milk.

After he had outgrown some of his puppy ways and his legs had become longer and less "wobbly," he took a great notion that he must follow anyone he saw leaving the house; often when some of us had got a block or two away from the house we would see Doc trotting along, "hind-quarters to-the-left," and wearing a look of joy seasoned with deprecation.

About this time he took to striking attitudes on beholding the neighbors' chickens, and not only did he "point" but likewise "flush" them, on several occasions overtaking and "mouthing" them so seriously as to render necessary a post mortem for the chickens and solitary confinement for a season, minus the blessing of hard labor, for Doc.

Now he looks with supreme disdain upon the common barnyard fowl; but let a wild bird twiddle leaf or limb and it is a joy to see the beautiful point he will make, quivering with eagerness, yet motionless—the perfect model of a son of a hundred sires of royal hunting blood—while the "master" talks to him softly:

"Steady, Doc! Steady, boy! Wait awhile till the law allows and then you and marse will go and get some birds for missus."

He seems to understand every word that is said to him; dear, handsome, honest-eyed fellow, he is so intelligent that I think, sometimes, all he lacks of being as smart as "folks" is the power of speech.

He is a little more than a yearling now, with a noble "fringe" on tail, legs and sides. The grouse season will be open in a few days and then—when he gets it—I will write and tell you about Doc's first bird.

TREATMENT OF DISTEMPER.

DISTEMPER is responsible for more deaths among well-bred canines than all other diseases combined.

Despite the claims of old-school sportsmen who place an abiding faith in the restorative qualities of various nostrums (by the aid of which they fondly imagine it is possible to effect ready cures) there is no specific for distemper, and in a large majority of instances animals which recover do so not because of the administration of medicines, but in spite of it.

Various are the so-called specifics. One fancier advocates the use of mackerel brine; another prefers a smudge of chips and leather trimmings, and holds the poor dog's head over it until it is a wonder he is not smothered to death; another administers pieces of common brown soap; another may pin his faith to the use of some blistering agent applied at the base of the brain; and so on ad nauseum. Treatment such as the above simply aggravates the disease. In all instances where it is deemed necessary to relieve the stomach and bowels of their contents castor oil or buckthorn syrup are safer and more reliable agents than salt mackerel brine or brown soap.

The average fancier is inclined to resort to over-dosing, no matter what medicines are used, and it is probable that more highly bred dogs have succumbed to the effects of injudicious treatment than from a lack of medicines. The gravity of the disease leads the fancier to be unremitting in his care, and various nostrums are administered in the hope that some may benefit the dog. The consequence is that the animal is continually disturbed or excited, and his stomach and bowels deranged by the drugging and over-feeding to which he must submit.

Distemper is due to a specific germ, the nature of which has not yet been clearly defined by scientists. It is probable, then, that it never originates spontaneously, but is dependent upon transmission or continued propagation for its existence. Inasmuch as kennels which have once been visited by the scourge are subject to periodical outbreaks, while others which have luckily escaped such visitations may be immune for years, the fact that distemper is due to a specific germ is fully established. Further proof is adduced by the development of the disease among dogs which have not come in direct contact with diseased animals, but have been exhibited in buildings where distempered dogs were harbored.

Hunting, in his treatise on distemper, says: "There are certain circumstances favorable to its origin: the congregation together of large numbers of dogs, the transit of dogs through the same places and in the same vehicles, contact with strange dogs—all of which are simply facilities for the conveyance and transmission of the specific poison of the disease. In kennels of hounds the most common time for outbreaks of distemper to appear is when the young hounds which have been farmed out at various places return home. Any of these may have been in contact with a dog suffering from distemper, and if one is infected all in contact with it suffer. The possibilities of the introduction of distemper are in exact proportion to the number of places from which the animals have been collected. Dog shows are a fruitful cause of the spread of distemper. No matter how well managed they may be the mere fact of collecting from various places a vast number of dogs renders a large show almost certainly a focus from which the disease is disseminated widely. In some cases a large show has been the means of infecting almost every puppy sent to it. The malady is not at once made evident, but shows itself a few days after the return of the animals. This can not altogether be prevented. Dogs just convalescent and free from any apparent disease are sent to shows and are capable of communicating distemper to others. Even healthy dogs having an immunity from the disorder because of a previous attack may carry the germs in the coats if they have been in contact with diseased animals, and so spread the malady without ever being suspected. Distemper may be easily transmitted from a diseased to a healthy dog by a nasal discharge. It is often spread by means of the food which a diseased dog has left. Its contagiousness no one disputes, but most men believe that there are cases which rise independently of any contagion. The basis of such a theory is the fact that in some cases the exact method of communication is not traceable. Until a case is found under circumstances which render the conveyance of the specific poison an impossibility, this theory has absolutely no facts to support it."

Following contagion there is a period of gradual development or incubation, which extends over a period of from five to fifteen days. During this period there is noted a loss of appetite, lack of animation and disinclination to move about. These symptoms are followed by shiverings, even on warm days, the lining of the eyelids becomes red and the eyes watery. Then you are apt to note a feverish condition, accompanied by sneezing and a husky cough, as if the animal is trying to eject some foreign substance from the throat. At first the discharge from nose and eyes is of a watery nature, but it soon becomes purulent, drying in crusts and sealing the eyelids unless care is taken to keep them clean. Prostration is generally very noticeable, and the animal becomes totally indifferent to his surroundings. In severe attacks the bowels and stomach become very irritable and a disagreeable odor emanates from the dog's throat. Vomiting may be frequent, and the disturbance and lack of nutrition soon weakens the patient to an alarming degree.

Where the disease is of an uncomplicated nature, and the physical condition of the dog is such that the great drain on his strength does not materially weaken him, the fever reaches its height in from five to seven days, and then subsides as rapidly as it developed. Certain breeds, such as terriers, recover more rapidly than do setters, pointers and hounds. They possess more grit and as a rule better constitutions than the larger dogs, and their fighting spirit aids them to resist the ravages of the disease.

The great danger from distemper lies not alone in its primary stage, but also in the secondary diseases which are liable to result from the vitiated condition of the system. Pneumonia, derangements of the liver and stomach, dysentery, paralysis, cholera, blindness, deafness, meningitis and violent eruptions of the skin are some of the after results of an attack of distemper. When paralysis, cholera or meningitis appear in aggravated form the case is well-nigh hopeless, as even under the most fav-

orable circumstances and with the best of treatment recovery is seldom complete. Usually it is only a useless prolonging of suffering, as in the vast majority of cases the victim succumbs at last to the ailment.

As soon as the disease makes its appearance the affected animal should be placed in specially prepared quarters, which are dry and well ventilated but free from drafts and not liable to great changes in temperature. Unless the weather is warm abundant bedding of wheat straw should be supplied, and the patient made as comfortable as possible. Disinfectants should be in constant use, preferably chloride of lime or a solution of creolin or carbolic acid. The bedding should be changed at least once each day, and oftener if the patient is greatly prostrated, and unable to move about. It is also best to slightly darken the quarters so that the patient may not be disturbed by the light or the flies, which are apt to congregate about him.

It is advisable to give the dog a liberal dose of castor oil the moment symptoms of distemper are apparent. This should be followed by the administration of a large dose of quinine, about seven grains being sufficient in the instance of a full-grown setter or pointer. Three or four grains should suffice for half-grown puppies of the same breeds, and will materially check the primary fever. The drinking water should be changed frequently and a little lime water added. As the disease progresses it is probable that the dog's appetite will fail, and while at first he may eat sparingly of finely chopped meat, broth thickened with rice, or toasted bread or slightly heated milk, the time may come when he will have to be urged or compelled to partake of food. Where the stomach is decidedly weak, beef tea, raw eggs and milk to which lime water has been added must be depended upon. When hand feeding must be resorted to it is well to remember that the continued forcing of food upon the patient will disturb and excite and overcome the good effects which might result from the administration of food. Raw eggs are easily fed, as it is only necessary to break off the end of the shell, open the dog's mouth with the fingers of the left hand, and withdrawing the tongue somewhat with one or two fingers of the right hand allow the contents of the egg to run down his throat. If he refuses to swallow relaxing the tongue will usually have the desired effect. Where great debility is noted it is well to accompany the eggs with a tablespoonful of sherry wine or if exhaustion is very great he may be stimulated by the same quantity of brandy. Unless the dog takes food without forcing, two eggs morning and evening, together with a little lean chopped beef, milk or broth in the middle of the day should be sufficient. By avoiding continual disturbance of the sufferer he will progress much better than if subjected to undue attention. Medicines will be of little avail unless you resort to the use of quinine (given in one-grain doses at each meal) or the administration of four grains of hyposulphate of soda given in a tablespoonful of water twice daily. If the patient's condition improves to such an extent that an increasing appetite enables him to eat without forcing, a tonic consisting of quinine, iron and strychnine such as is prepared by most druggists may be given, or you may resort to the use of strychnine, commencing with one-sixtieth grain tablet morning and evening and increasing the dose to one tablet morning, noon and night.

It is well to remember that a dog which has recently recovered from distemper should be restrained for at least one month after all symptoms disappear, as otherwise undue excitement or exertion is almost certain to bring on chorea, paralysis or other evil after effects of distemper.

No doubt the time will come when, through the aid of the scientist, fanciers will be enabled to inoculate their dogs against the virus of distemper, but as yet such inoculation is in an experimental stage, and no definite results have rewarded scientific research.

PACIFIC COAST F. T. CLUB'S DERBY.

Patrons of field trials should remember that entries for the Pacific Coast Field Trial Club's twenty-second annual Derby Stake close July 1, and entries mailed on or before that date will be accepted by Mr. Albert Betz, the club's secretary-treasurer, located at 201 Parrott Building, San Francisco.

Everything points to very successful trials next January. Copious late rainfalls at Bakersfield have insured a splendid growth of cover, and judging from present reports the number of birds will be far in excess of that of many previous seasons. Sportsmen who possess promising Derby candidates born on and after January 1, 1903, should make entries and engage in the splendid sport offered by field trials. The nominating fee is $5, which must be remitted with the entry. In making entries give the name, breeding, sex, color, date of whelping, and ownership of dogs.

THE MANITOBA TRIALS.

The Manitoba Field Trials Club will hold its eighteenth annual trials at Carman, Man., beginning September 8,

Derby Stake—For setters and pointers whelped on or after January 1, 1903. Entries close July 1, 1904. Purse, $400; first, $175; second, $100; third, $75; fourth, $50; $5 forfeit; $10 for starters.

All-Aged Stake—For setters and pointers who have not won first place at any of the following trials: Eastern, Continental, United States and Manitoba, in any previous year. Entries close August 1, 1904. Purse, $400; first, $175; second, $100; third, $75; fourth, $50; $5 forfeit; $10 for starters.

Championship Stake—For setters and pointers. Open only to dogs that have won a place in competition in field trials. Nominations to be made on or before August 1, 1904; $5 forfeit; $10 for starters. Purse to consist of total running fees, and gold medal, donated by J. Lemon. First heat, one hour; afterward at discretion of judges.

Forfeit money must accompany each entry.

The following arrangements have been made in order to prevent expense, trouble or delay at any of the Customs Ports of Entry, viz., Gretna or Emerson:

All dogs that have been duly entered in any of the Manitoba Field Trials Club events are allowed to enter Manitoba and remain for ninety days free of all duty.

In order to benefit by this arrangement, an accurate description of each dog is absolutely necessary, giving name, breed, sex, color, event entered in, owner's name, name of person having charge, and line of railway traveling by, must be mailed to the undersigned one week previous to date of arrival at Port of Entry.

W. W. Titus and T. T. Ashford will judge. For entry blanks and further information address Eric Hamber, secretary-treasurer, Winnipeg, Man.

THE LOS ANGELES SHOW.

THE inaugural show of the recently organized Southwestern Kennel Club, held in the Chutes Theater at Los Angeles, on May 4 to 7, was one of the most pleasant affairs ever witnessed in the State. The management was in the right kind of hands, the wealthy business men of that most progressive city, with Count Von Schmidt as president and Arthur Letts as general director. Add to this the most earnest and efficient services of Dr. F. H. Kirby as secretary, and it will at once be apparent that such "push" must inevitably secure success.

But this was not all of the "push" by any means. The vice-presidents of the club were men of affairs, and of many friends also. The show committee was also composed of men whose names are a power for good. And possibly the dynamic moving power of the splendid list of patronnesses, consisting of Mesdames L. L. McKinstry, Mildred M. Cravens, Roy Jones, John Plater, Fred Wilcox and Jaro Von Schmidt had as much, if not more, to do with the constant packing of the theater to actual uncomfort with the wealth and beauty of the city.

To Arthur Letts, however, must be awarded the major share of that intelligent work which made the first effort of the club so marked a success.

Of course like all first shows there were mistakes in the clerical work of cataloging, and confusion in benching and numbering of the dogs. But these little defects were soon remedied, and were so overshadowed by the brilliancy of other successes as only to be noticeable to the eyes of experienced attendants upon exhibitions of this nature.

The Los Angeles show was the last to be held under the Pacific Kennel League rules, the reorganization under the broader name and broader field of Western Kennel League succeeding the P. K. L. in the future. But there was nothing of the valedictory, nothing of the sad leave-taking, nothing of the funeral rites connected with it. It was far more like the wedding feast, the joining of the hands of the Pacific Coast with the great Middle West in a life labor for the upbuilding of a better and manlier management of the kennel affairs of America.

The collection of cups and trophies given as special prizes was in all probability the most valuable ever offered by any show in America. The collection was not only large, but the major portion of it was cups varying in value from $100 to $200. Besides these there were also many, very many, merchandise prizes of $10, $12 and $15 values.

The attendance was simply wonderful, being so great at times as to be a perfect jam, preventing any movement through the building.

In quality many of the breeds—noticeably the pointers and setters—was very high, possibly the highest ever shown on the Coast. The exhibits came from several States, from British Columbia and the island of Vancouver. Financially it was as marked a success as it was socially, leaving the young club with a handsome cash balance as a nucleus for its future efforts.

The following is the list of awards:

AWARDS.

St. Bernards (rough coats)—Puppy dogs—First Dr. O. P. Roller's Dorian, second Dr. Roller's Major. Novice dogs—First M. F. George's Prince Lee, second T. C. Wirsching's Bernardo. Limit dogs—First Prince Royal. Open dogs—First Prince Royal, second S. F. Smiley's Keno, third M. F. George's Prince Leo, reserve F. V. Harrow's Prince. Winners, dogs—First Prince Royal, reserve Keno. Puppy bitches—First Dr. O. P. Roller's Beauty, Novice bitches—First Dr. Roller's Lady Lucille. Winners, bitches—First Lady Lucille, reserve Beauty.

St. Bernards (smooth coats)—Puppy dogs—First Helen L. Buffington's Major. Open dogs—First Mrs. C. E. McStay's Duke Russell, second T. W. Watson's Don Caesar. Winners, dogs—First Duke Russell, reserve Don Caesar.

Great Danes—Puppy dogs—First F. R. Valk's Major. Open dogs—First Mrs. H. M. Borden's King. Winners, dogs—First King, reserve Major. Novice bitches—First F. R. Valk's Princess Fan, second C. L. Sweeney's Queen. Winners, bitches—First Princess Fan, reserve Queen.

Pointers—Novice dogs—First California Kennels' Doctor Daniels, second W. S. Toyis's Glenwood, third J. R. Kreger's Doctor Morgan, reserve A. E. Jackson's Dandy, very highly commended H. T. Englebrecht's Mike, very highly commended J. R. Kreger's Daisy Dot. Limit dogs—First Doctor Daniels, second Stockdale Kennels' General Joe Wheeler, third Stockdale Kennels' Glenwood, reserve Dandy, very highly commended Mike. Open dogs—First Doctor Daniels, second General Joe Wheeler, third Glenwood, reserve P. Morris' Teddy Kent. Winners, dogs—First Doctor Daniels, reserve General Joe Wheeler. Puppy bitches—First Stockdale Kennels' Cuba's Dinah. Novice bitches—First William J. Morris' Faith, second California Kennels' Gamma, third Stockdale Kennels' Fly's Pearl, reserve J. W. Vance's Black Diamond. Limit bitches—First Cuba's Dinah, second California Kennels' Senorita. Open bitches—First Faith, second Cuba's Dinah, third William J. Morris' Seekong Flirt, reserve G. Lawson's Phoebe. Winners, bitches—First Faith, reserve Cuba's Dinah.

English Setters—Puppy dogs—First California Kennels' Mariposa, second K. E. Preuss' Pancho, third S. Mather's Stylish Duke, reserve Charles P. Schreiner's Echo Nick. Novice dogs—First California Kennels' Kalamath, second J. M. Donley's Monterey, third K. E. Preuss' Pancho, reserve Stylish Duke. Limit dogs—First California Kennels' California Bell Boy. Open dogs—First T. P. McConnell's Count Rego, second California Kennels' Jay M. Winners, dogs—First Kalamath, reserve Mariposa. Puppy bitches—First California Kennels' Santa Rita, second C. L. Ferry's Stylish Dutchess, third K. E. Preuss' Lady May, reserve O. W. Harris' Lou Dillon. Novice bitches—First Dr. C. A. Kuhn's Queen, second Stylish Duchess, third Lady May, reserve E. A. Parsons' Lady Parsons, very highly commended E. A. Parsons Parsons's Fad. Limit bitches—First K. C. Preuss's Dolly Gray, second T. P. McConnell's Tirphils Judith, third Queen, reserve Lady Parsons. Open bitches—First John W. Riplinger's Pera, second John W. Riplinger's Elloree, third C. A. Kuhn's Dolly Gray, reserve Tirphils Judith, very highly commended Lady Parsons's Queen. Winners, bitches—First Ch. Pera, reserve Ch. Elloree.

Irish Setters—Novice dogs—First Paul Peiper's Royal Dan, second Mrs. Paul Hutchinson's

Finglass, third Flora Cummings' Killarney Cummins. Limit dogs—First Royal Dan, second Killarney Cummins. Open dogs—First Royal Dan, second Killarney Cummins. Winners, dogs—First Royal Dan, reserve Finglass. Puppy bitches—First Theodore Phelps' Nance O'Neil. Novice bitches—First H. Varley's Lismore Belle. Open bitches—First C. O. McDowell's Queen Mac Mac, reserve Lismore Belle.

Gordon Setters—Open bitches—First R. D. Baly's Lady Jennie.

Irish Water Spaniels—Third Charles Bogenschneider's Chocolate Belle.

Cocker Spaniels (black)—Puppy dogs—First William L. Tyler's Oak Glen Darky, second L. C. Carr's Nigger. Novice dogs—First Grace W. Bates' Rex Ray. Limit dogs—First R. G. Gamwell's Duke Royal, second Edwin Ralph's Count Echo. Open dogs—First Duke Royal, second Grace W. Bates' Rex Ray, third Count Echo, reserve K. A. Steven's Duke. Winners, dogs—First Duke Royal, reserve Rex Ray. Puppy bitches—First C. Dalgreen's Trixie. Novice bitches—First Mrs. L. Tyler's Oak Glen Chloe, second Charles P. Schreiner's Gamma. Limit bitches—First Gamma. Open bitches—First Gamma, second Trixie. Winners, bitches—First Oak Glen Chloe, reserve Gamma.

Cocker Spaniels (parti-color)—Puppy dogs—First Chas. P. Schreiner's Echo Chubb. Novice dogs—First Charles P. Schreiner's Nairod Tyke. Limit dogs—First Nairod Tyke. Open dogs—First Portland Kid, second Mrs. C. W. Sharples' Budd Zunts. Novice dogs—First Portland Kid, reserve Budd Zunts. Open bitches—First Mrs. C. W. Sharples' Pattern. Winners, dogs—First Portland Kid, reserve Budd Zunts.

Cockers (solid colors, other than black)—Puppy dogs—First Fred G. Gillespie's Hamilton Carnival. Novice dogs—First Mrs. J. V. Littig's Red Ford Cavalier, second John Bradbury's Obo, third Mrs. L. Tyler's Oak Glens Rufus. Limit dogs—First Mrs. J. V. Littig's Red Ford Cavalier, second Obo. Open dogs—First Red Ford Cavalier, second Obo. Winner dogs—First Red Ford Cavalier, reserve Obo. Novice bitches—First Charles P. Schreiner's Echo Floss, second T. H. Broadhead's Red Satin, third Mrs. L. Tyler's Oak Glen Ruby. Open bitches—First Portland Cocker Kennels' Portland Twinkle. Winners, bitches—First Portland Twinkle, reserve Echo Floss.

Collies (sable and white)—Puppy dogs—First Mrs. C. W. Manwaring's Donald Ellyn, second William Kennedy's Mae Bon. Novice dogs—First Mrs. N. J. Stewart's Tinto, second W. Kennedy's Sir J. D. Bruce, third Dr. G. A. Scroggs's Boy, reserve Dr. W. Hitt's Dr. Don. Limit dogs—First Arthur Letts' Ravenswood, second Tinto, third Dr. Hitt's Dr. Don. Open dogs—First Ravenswood, second Tinto, third Boy, reserve Dr. Don. Winners—First Ravenswood, reserve Tinto. Puppy bitches—First Mrs. John A. McDonald's Countess Mono III. Novice bitches—First James Adams' Lady May III, second Charles P. Schreiner's Countess Mono; third Stella Kennedy's Lady Peggy, reserve Mrs. C. L. Douglass' Mona. Limit bitches—First Lady May III, second Arthur Letts' California Ivy, third Mona. Open bitches—First Lady May III, second California Ivy. Winners—First Lady May III, reserve California Ivy.

Collies (tri-color)—Puppy dogs—First Mrs. O. J. Albee's Brookmere Charlie. Novice dogs—First Mrs. O. J. Albee's Brookmere Charlie, second Miss Martha White's Cheviot Chieftain. Winners, dogs—First Brookmere Charlie, reserve Cheviot Chieftain. Puppy bitches—First O. J. Albee's Astrologer Live Oak, second Chas. P. Schreiner's Echo Dollie, third Echo Kennels' Scottish Maid. Novice bitches—First Echo Kennels' Echo Dollie. Limit bitches—First Echo Kennels' Mt. Pico Maid. Winners—First Astrologer Live Oak, reserve Echo Dollie.

Fox Terriers (smooth coated)—Puppy Dogs—First Geo. S. Waring's Safety. Open dogs—First H. V. Hamilton's Garston Rally, second Gus Moser's Warren Driver, third Robert Armstrong's Vagabond, reserve W. W. Howard's Vent, very highly commended F. H. Dudley's Algy, very highly commended Marie Campbell's Dauntless Cavalier. Winners, dogs—First Garston Rally, reserve Warren Driver. Puppy bitches—First J. R. Huddleston's Ramona Beauty, second W. W. Howard's Vera. Novice bitches — First J. R. Huddleston's Ramona Brownie, second J. R. Huddleston's Ramona Princess. Limit bitches—First Ramona Princess. Open bitches—First Ramona Princess, second Mrs. Steve Dorsey's Lorrita Rosina Lucy. Winners, bitches—First Ramona Brownie, reserve Princess.

Fox Terriers (Wire haired)—Novice, limit and open dogs—First G. E. Babcock's Whiskey. Novice, limit and open bitches—First, Julius Redelsheimer's Cold Stuff.

Bull Terriers — Puppy dogs — First A. R. Thomas' Little Lord Fountleroy, second Mrs. A. M. Lovelace's Doc Norton, third Mrs. N. Osgoodby's Buster Brown. Novice dogs— First J. R. White's Deacon, second J. G. Franciscus' King's Brother. Limit dogs—First King's Brother. Open dogs—First Athole McBean's Ch. Banjo, second King's Brother. Winners, dogs—First Ch. Banjo, reserve Deacon. Puppy bitches—First A. H. Thomas' Princess Trebizonde, second E. Greenfield's Lady Boston, third Mrs. Norah Osgoodby's Miss Patsy. Novice bitches—First A. C. Cleveland's Fannie, second Lady Boston, third F. E. Scott's Nellie Lass, reserve William D. Greenough's Bessie. Open bitches—First Lady Boston. Winners, bitches—First Fannie, reserve Princess of Trebizonde.

Pit Bull Terriers—Limit dogs—First Walstein Root's Mutt. Novice dogs—First T. J. Pfluger's Bob. Open dogs—First Mabel S. Long's Don Nicholas, second Norah Osgoodby's Prince Gyp, third Mutt. Limit bitches—First Miss S. A. Thomas' Queen.

Boston Terriers—Limit dogs—First Mrs. Chas. Mackay's Prince of Pilsen, second W. H. Strawbridge's Heavy Jimmy Strawbridge. Open dogs—First Prince of Pilsen, second Heavy Jimmy Strawbridge. Winners, dogs—First Prince of Pilsen, reserve Heavy Jimmy Strawbridge. Puppy bitches—Second W. H. Lombard's Betty. Novice bitches—Second Betty, third H. D. Lombard's Pet. Limit bitches—second Betty, third Pet.

Bulldogs—Novice dogs—First James Ewins' Ivel Rustic, second D. W. Heron's Adonis. Novice bitches—First James Ewins's Wedding Bell, second James Ewins' Little Girl. Open bitches—First James Ewins' Wedding Bell, second Charles R. Harker's Madam Chaddy. Winners, bitches—First Wedding Bell, reserve Madam Chaddy.

Airedale Terriers—Open and winners, dogs—First M. R. Morres' Yeoman Robert. Open bitches—First M. R. Morres' Widcome Duchess.

King Charles Spaniels—Puppy dogs—First Mrs. S. Sweeney's Goodles Bobby. Puppy bitches—First Inglenook Kennels' Toodles Baby. Novice bitches—First William Greenough's Nellie. Open bitches—First Mrs. S. Tyler's Nona. Winners, bitches—First Nona.

Japanese Spaniels—Novice dogs—First Thos. W. Buley's Inglenook Pooh Bah. Open and win-

ners, dogs, Mrs. Leila Wallace's Koko. Limit bitches—First Mrs. Sada Sweeney's Pitti Sing. Open and winners, bitches—First, Mrs. S. Sweeney's Pitti Sing.

Greyhounds — Puppy bitches — First Louis Dodd's Irma Hotfoot.

Black and Tan Terriers—Open dogs—First E. P. Smith's Black Prince.

Maltese Terriers—Open dogs—First Mrs. Coveny-Benedict's Buzzy.

Chihuahua—Puppy bitches—First Paul Mueller's Vorina, second Paul Mueller's Jackie, third Mrs. T. N. Persee's Midgy.

Australian Maori—Open dogs—First J. G. Hale's Maori.

Poodles—Novice dogs—First Mrs. V. H. Tisdale's Toy, second S. P. Staat's Jim Jeffries, third Mrs. Fred Carter's Teddy Roosevelt. Limit —First Mrs. C. W. Horner's Lady, second Mrs. Crawford-Lytton's Babe. Winners—First Lady.

Irish Terriers—Novice bitches—First W. R. Murphy's Rag Tag.

Beagles—Novice dogs—First Dr. L. Weber's Bingo, second John B. Weiss' His Royal Nibs, third John B. Weiss' Carlo. Novice bitches—First Dr. L. Weber's Smith's Goldie.

Dachshunds—Novice, limit and open, dogs—G. E. Babcocks' Bennie. Novice, limit and open, bitches—G. E. Babcock's Pretzel.

"LILY WRIGHT,"

A famous courser of the Pacific Coast, owned by Judge Wm. Cramer, San Francisco.

POINTER SIRES.

YOUNG RIP RAP.

This famous son of Ch. Rip Rap and Pearl's Dot was a winner in six field trials, and the sire of many noted winners including Rip Tick, Sabine's Rip, Black Sensation, Reese's Riley, Rip's Lass, Mascot, Rip's Lad, Rap's Pointer, North Jetty, Sirdar, Trinket and Rip. His pedigree reveals the names of many celebrated winners and producers of the past. His sire, Ch. Rip Rap, was considered the best field-trial pointer ever bred in America, and his dam, Pearl's Dot, won immortal fame through her great record as a dam of field-trial winners and producing dams.

YOUNG JINGO.

Young Jingo is by Ch. Jingo out of Pearl's Dot, consequently a half-brother to Young Rip Rap. Young Jingo has proved himself to be not only a field-trial winner of great merit, but as a sire has equalled if he has not excelled the record of his illustrious half-brother. He is the sire of Queen Mat, Eve's Jingo, Nebraska Ben, Perl's Jingle, Queen Mat, Gray's Pearl, Petronella, Lord Derby, Jingo's Bang, Eve the Second, and J. C.

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Rye or Bourbon--in barrels or cases, is **ALL WHISKY**, and whisky, too, of the highest grade known.

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Afloat or Ashore

It will hereafter be supplied the trade under the **KENTUCKY INSPECTION** in all its purity, flavor and mellowness, just as it leaves its "Old Kentucky Home."

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Grand American Handicap
Begins June 21st.

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That's good. Take along

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THAT'S BETTER

ADLETS

Advertisements of subscribers of For Sale, Wants, Exchanges, etc., will be inserted under this head at 15 cents per line for first issue, and 10 cents per line for each issue thereafter Eight words or fraction thereof measured as a line.

Cash must be sent with order to insure insertion.

FOR SALE—Game Heads, Fur Rugs, at low prices. Professor Gus Stainsky, Taxidermist world-wide reputation, Colorado Springs, Colo.

* * *

WANTED—Every sportsman to know that in Montana we have plenty of big game for all. Elk, deer, sheep, bear, and a variety of small game. Can begin hunting second day out. Address A. R. Hague, guide, Fridley, Mont.

* * *

FOR SALE—Eastman-Walker 5x7 view camera, reversible back, rising front, double swing; Gray's No. 4 Periscope lens; three double plateholders; tripod and head; Low Kazoo shutter, No. 1; canvas carrying case; cost $61.00; all but case in excellent condition. EIGHTEEN DOLLARS cash. Arthur Inkersley, 508 Montgomery street, San Francisco.

* * *

FOR SALE—A few choice Angora Kittens, sired by "Cherub," winner of Western Field Challenge Cup, 1904. A. J. Oliver, 1225 Willard street. 'Phone Page 9781.

* * *

POINTER PUPPIES, by the celebrated Ch. Duke of York-Seekonk Flirt. Just right age for next year's Derby. None better. $20 and $25. Wm. J. Morris, 1033 Thirtieth st., Los Angeles.

* * *

FOR SALE—Finest Columbia Graphophone and one hundred selected records. New and perfect. Will take just half price for same. Address "Phone," "Western Field" office.

* * *

FOR SALE—Fine Eastman Folding Kodak, 5x7, complete and in fine condition. Developing and printing outfit, chemicals, etc., cheap. Refer the Editor "Western Field."

* * *

FOR SALE—A fine Bullard single-shot target rifle, Swiss butt, Vernier sights, etc., extra fancy stock, embossed action. Recently recut by Geo. Schoyen from .35 to .38 caliber. Tools, etc., complete. Cheap for cash or might trade. Want a good duck boat, decoys, etc. "Gunner," care "Western Field" office.

* * *

WANTED—To correspond with any parties who contemplate a hunting, fishing or camping trip in the mountains or a camping trip through the Yellowstone National Park. My facilities for outfitting parties are of the best, and my long residence, experience and thorough knowledge of the country makes the chances of a pleasant and successful trip assured. References furnished on request. S. N. Leck, Jackson, Wyo.

* * *

WANTED—Combination billiard and pool table. Will trade fine rifles, shotgun, camera, etc., for same, or pay cash if cheap and in good condition. Address "Table," "Western Field" office.

* * *

FOR SALE—Llewellin Setter Pups. Sire, Petrel's Count (Ch. Gladstone IV-Rod's Petrel); dam, Gath's Moxy (Sport's Gath-King's Moxy). Handsomely marked black, white and tan. Price, $20 and $25. Mrs. Thos. Murphy, Hollister, Cal.

EXCHANGE—Foncion Soto U., apartado 106, Bogota, Colombia, postage stamps and picture post-cards collector. Exchange desired. Send me your duplicates; I will send you same value in Colombian stamps.

* * *

WANTED—Persons who would like to have a summer cottage within easy reach of San Francisco and located on good hunting and fishing ground; also sportsmen who might desire to form a club and own their hunting grounds at a very small cost. Fine trout streams in abundance. I refer by permission to Editor "Western Field." For information write to Jas. L. Skiffington, Melburne, Mendocino Co., Cal.

* * *

FOR SALE—Orange and white English Setter Bitch Puppy, by Tony's Hope (Ch. Antonio-Nelly Hope), out of Princess Gleam (Noble Gleam-Lady Windem). H. L. Betten, Alameda, Cal.

* * *

FOR SALE—Several trained, untrained, and partly trained setters and pointers. Dogs and bitches. High class and finely bred. California Kennels, Del Rey, Cal.

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GOLF BALLS—We repair rubber filled balls. Work absolutely satisfactory. We deliver them to player in two weeks. Repairing, $1.75 per dozen. Repaired rubber filled balls in stock, $3.25 per dozen. A. C. Willingen, 44 Wakeman Ave., Newark, N. J.

* * *

FOR SALE—English Bull Dog Puppies, Brindles, by Rex Rustic ex my winning bitch Wedding Bells. Both are registered and of the best breeding, better blood not obtainable. Dam is considered the best bitch west of Chicago. Sire is by that good dog Ch. Joel Rustic, whose record on the bench both in England and America is well known. Females, $30.00; Males, $10.00. They are all brindles and all good. J. EWINS, 524 S. Broadway, Los. Angeles, Cal.

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SOME PARKER WINNINGS.

At the recent shoot of the Vicksburg Gun Club, concluded on May 18, the Parker gun has strong reason to be proud of its record among the amateur shooters. Mr. Ed. Brady of Memphis won highest amateur average for the entire shoot, and Mr. Paul Chaudet of New Orleans was third; both shooters shooting the Parker gun. For amateurs we think this a remarkable showing.

On May 17 at Vicksburg, Mr. Fletcher of Vicksburg won the championship cup with a score of 49 out of 50. Mr. Fletcher also shoots the Parker gun.

Frank J. Morse, an architect of Boston, Mass., also an amateur shooter, at the Watertown Gun Club grounds, on the fourteenth of May, made a score of 50 straight. Mr. Morse speaks in highest terms of the performance of the Parker gun, and this record is one to be proud of.

John A. Flick of Ravine, O., a one-armed shooter, shooting the Parker gun, on May 19, broke 23 out of 25 in a gale of wind. No other score was over 18. This was really a wonderful performance for Mr. Flick, and speaks with credit for the performance of the Old Reliable Parker.

At the Columbus shoot, Columbus, Neb., W. D. Townsend, shooting the Parker gun, scored 96 out of 100, tying for second place in competition for the $100 hammerless gun. W. D. Townsend won the gold medal event with a score of 49 out of 50. Mr. G. A. Schroeder tied with him on the first 25 straight, Mr. Townsend winning in the shoot-off, both of the above gentlemen shooting the Parker gun.

* * *

THE LATEST—.30-40 U. S. BULLET.

The bullet here illustrated is the culmination of a long series of experiments by W. G. Hudson of New York City, in conjunction with the Ideal Mfg. Co., New Haven, Conn. The latter state that it is a modification of the Hudson bullet No. 308,256. It is one-sixteenth of an inch shorter over all. The point is shaped after the pattern of the U. M. C. Thomas bullet. The length of the bullet from under the band "C" is exactly the same; the middle groove is filled, thus securing greater weight at the base and presenting more surface, which increases the grip on the rifling; the front band "C" is precisely the same as No. 308,256. The Ideal dirt catcher is retained. The weight of this bullet when cast from pure lead is about 200 grains, and with the alloy of 10 per cent. antimony, 10 per cent. tin and 80 per cent. lead, which mixture is recommended, the bullet will be about 170 grains, which is really the same as the regular factory mid-range bullet (180 grains). The new bullet will be designated in the Ideal Hand Book as No. 308,268.

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PROMPTLY RECOGNIZED.

It speaks well for the general prosperity of San Francisco that a new business enterprise of such magnitude as the jewelry store of the Bohm-Bristol Co. should meet with immediate success. We have it upon good authority that the business to date has been more than satisfactory; nor can this be wondered at when one considers the beautiful and comprehensive stock which has made this new store the talk of the town. The San Francisco public is appreciative of artistic excellence and does not fail to give its substantial support to such establishments as cater to refined tastes. Those who have not yet visited this store would do well to take advantage of the summer season to inspect at their leisure the varied attractions of this thoroughly up to date display. From the simplest silver trifle to the most elaborate jewel there is nothing that is not new and pleasing, and Bohm-Bristol quality has long been considered the standard of excellence throughout the mid-West.

* * *

HE DELIVERS THE GOODS.

The sportsman who has designs on the big game of America will do well to get into intimate touch with A. R. Hague of Fridley, Montana, who has the enviable reputation of being one of the most dependable guides in mid-Northern America. Mr. Hague has the satisfying knack of getting his patrons closer and to more big game than any man in his State, and his personally conducted parties always come out with the full limit and big heads—both in their packs and under their hats. If you are looking for elk, deer, "bighorns" or bear, take our tip and write him to-day or you may be too late to secure his services.

* * *

DON'T MISS THIS.

If you have not already got a copy of N. R. Davis & Son's (Assonet, Mass.) new catalogue, better write before the supply is exhausted. You will be benefited, surprised and delighted at one and the same time, for reasons that will be apparent when you first open its covers. It may save you dollars to read this book—and you can have it for the asking.

* * *

SOME WINCHESTER WINNINGS.

Shooters of Winchester goods carried off honors at the seventh annual Northern California Trap Shooting Tournament. Of the seventy-eight shooters that faced the traps at this tournament, fifty-seven shot the Winchester "Leader" shells and twenty-eight used the Winchester "pump" gun. The live bird championship medal, emblematic of the champion live bird shot of Northern California, which was shot for on the first day of the tournament, May 28, was tied for on straight scores by F. J. Rushtaller Jr. of Sacramento, D. L. Gray of Shingle Springs, D. Barrett of Lincoln and J. W. Humble of Gridley. In the shoot-off Mr. Rushtaller, shooting a Winchester "pump" and "Leader" shells, won. Three of the four above named gentlemen who tied on this medal shot the "Leader" shell. The Kimball-Upson Co. trophy, shot for on the second day of the tournament, May 29, was captured by J. W. Humble of Gridley after shooting off a tie with "Jones." Mr. Humble shot a Smith gun and "Leader" shells. The first prize in the big merchandise event of the first day, which was a Winchester "Trap" grade "pump" gun donated by the Kimball-Upson Co., was captured by M. E. Phillips of Colusa, shooting a Smith gun and the "Leader" shells. Mr. Phillips made the only twenty straight in this event. Of the remaining twenty-three prizes in the merchandise event, nineteen were won by shooters using "Leader" shells. The inanimate championship medal, emblematic of the champion target shot of Northern California, shot for on the closing day of the tournament, May 30, was won by O. Hellman

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JEWELERS
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SILVERSMITHS
The Place to buy Wedding Silver.
Fine Designs in 14k Jewelry.
Precious Stones.

Field Trophies and Shooting Medals
CLUB EMBLEMS
DESIGNS FURNISHED GRATIS

Commence the Season's Fishing Right
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STEWART BASS AND SALMON SPOONS
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MAKERS OF
KEWELL'S LA FORGE SPINNERS, AND KEWELL'S AMERICAN TROUT FLIES
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of Dunsmuir with a Winchester "pump" and "Leader" shells. Mr. Hellman made the only twenty straight in this event. The first prize in the merchandise event of the last day, which was an L. C. Smith Hammerless gun, donated by the Kimball-Upson Co., was captured by F. Burgi of Willows, with a Winchester "pump" gun and the "Leader" shells. Of the remaining twenty-two prizes in the merchandise event, seventeen were won by shooters who shot the "Leader" shells. The team trophy (five men to the team) was won by Gridley with the score of 68 out of the possible 75. This team was composed of J. E. Haugh, J. W. Humble, A. Johnson, G. Thomason and H. Hazelbrush. Three of the five men on this team shot the "Leader" shells. The high average medal of the tournament was captured by O. Hellman of Dunsmuir with a Winchester "pump" and "Leader" shells. Mr. Chas. Baird, the armless "pump" gun shooter, gave exhibitions of shooting each day of the tournament. On the first day he scored 21 out of 25 at single targets and 6 out of 10 at doubles. On the second day he scored 23 out of 25 at single targets and 7 out of 10 at doubles, and on the closing day he scored 22 out of 25 at singles and out of 10 at doubles. Mr. Baird's work with the "pump" gun is wonderful. He is the only known armless shooter in the world. Through an accident in a threshing machine some ten years ago he lost his right arm close to the shoulder and his left arm above the elbow. His Winchester "pump" gun is especially equipped with straps, metal framework, trigger pulling lever, etc., to fit his requirements, and the way he operates the gun and shoots is a most wonderful exhibition.

* * *

SOMETHING NEW.

The J. Austin Dunn Specialty Co., 901-903 Marshall Field & Co. Building, Chicago, Ill., are offering something new in the way of a medicine dropper that is destined to achieve a quick popularity. It has a bulb made of new material; the drop is smooth and easily made and there is no danger of sediment or contamination of any kind. The least pressure on the cellulose bulb fills the glass tube, which is all that is necessary. It can be easily and quickly taken apart for cleaning and can be sterilized in hot water if desired. The cork is made of the highest grade non-blooming rubber. The glass tube can be adjusted to any length. The bulbs are in three colors—clear, green and amber. It is sold at a very low price and already has taken the premier rank among utilities of this kind.

* * *

A FEW U. M. C. RECORDS FOR MAY.

At the shoot at Franklin, O., high average was won by Mr. Chas. Young, scoring 96½ per cent.

E. D. Fulford at the Rochester, N. Y., shoot, won high average, scoring 93 per cent.

In Waco, Tex., Mr. T. E. Hubby, on May 9, won high average, scoring 98 per cent.

On May 11 at Halls, Tenn., F. C. Riehl won first average, scoring 96 per cent.

At the Rockdale, Tex., shoot, on May 11, T. E. Hubby won high average, with 96 2-3 per cent.

At Memphis, Tenn., E. Brady won with a score of 94 per cent., and also at Vicksburg, Miss., Mr. Brady won the high amateur average, scoring 95 per cent.

J. L. Head won the Decatur and Hebron shoots on the 11th and 14th, with scores of 90 and 93 per cent.

O. N. Ford won the Iowa Target Championship, Mr. A. P. McDowell the Iowa Diamond Badge, at Spirit Lake on May 13.

Fred Colman, at Mahoney City, Pa., May 14, before a large crowd, won the Pennsylvania State Bird Championship.

At the Watertown, Wis., Gun Club shoot, May 15, G. V. Dering won the high average for the shoot, scoring 91.1 per cent.

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At Litchfield, Ill., May 18, W. T. Craig won high average, scoring 163-175.

J. L. Head on May 21 won the shoot at Indianapolis, scoring 94.4 per cent. Mr. Head also won the shoot at Earl Park, Ind., on May 19, with a score of 93 per cent.

At the Minneapolis Gun Club shoot, May 19 and 21, T. A. Marshall won high average for the entire shoot.

The Nebraska State Championship was won by Wm. Townsend, who missed but one bird.

All these creditable scores were made with U. M. C. shells.

In the initial shoot of the Pacific Coast Trap Shooters' Association, held at Ingleside, May 29 and 30, 1904, there were ninety-four contestants. Of this number seventy-nine used U. M. C. paper shells exclusively.

At the live bird shoot of the Kimball-Upson tournament, held at Sacramento, Cal., on Saturday, May 28, 1904, there were thirty-five contestants, thirteen of whom used U. M. C. "Magic" shells. In the second and third days of this tournament, which were devoted to blue rock shooting, there were seventy-four contestants, thirty-two of whom used U. M. C. "Acme," "Magic" and "Monarch" shells.

The Sportsman's Review gold medal was won by Mr. R. C. Cox of Seattle, Wash., using U. M. C. "Magic" shells, E. C. powder, and handloaded by the Hardy-Hall Arms Company of Seattle, Wash.

In the tenth annual tournament of the Washington State Sportsmen's Association, fifty-six contestants shot through the three days. Of these, thirty-two used U. M. C. shells, among them being the winner of the high average, Mr. F. K. McBroom of Spokane, who also won individual championship.

* * *

Of thirty-one contestants at the Golden Gate Gun Club shoot, held at Ingleside May 15, no less than twenty-three, including the first and second high average men, the winners of the championship and class medals, etc., shot U. M. C. shells.

In twenty-six participants at the C. C. Gun Club shoot at Berkeley, May 22, U. M. C. shells were used by twenty-four men, Mr. R. C. Reed breaking 20 straight with Selby-loaded U. M. C. "Magics."

At the Milwood G. C. shoot held at Mill Valley, May 22, out of twenty contestants seventeen used U. M. C. shells. C. Frazen broke 23 out of 25 with Selby-loaded "Magics."

* * *

SOME PETERS PERFORMANCES.

Some very remarkable performances have recently been placed to the credit of Peters loaded shells. The manufacturers claim for these goods that while perfectly suited for use by experts, they are, by reason of their absolute uniformity, especially to be desired by amateurs. The amateur shooter can buy these shells off the shelf of any store and find them as good in every way as the shells which most experts have loaded especially for them. That this contention is well founded is emphasized by the fact that of a goodly number of winnings made recenly with Peters goods, a large proportion of the shooters were amateurs.

These shells won six out of nine interstate team races between the States of Missouri, Kansas and Nebraska; the State event at live birds, first and second amateur averages at Junction City, Kan., May 3 to 6; high average at Utica, O., May 5; first and second amateur averages at Americus, Ga., April 27 and 28. These, and many other victories, clearly indicate that Peters shells are to be relied upon at all times and in all places.

Neaf Apgar continues to do some fine shooting at the Pennsylvania tournaments. He is one of those shooters who never brag but keep right on at a fast gait week after week. At Red Lion, Pa., May 10, he broke 194 out of 200 targets. He was in an exceptionally good humor, doubtless owing to the fact that thirty-three out of forty-one shooters were using Peters shells.

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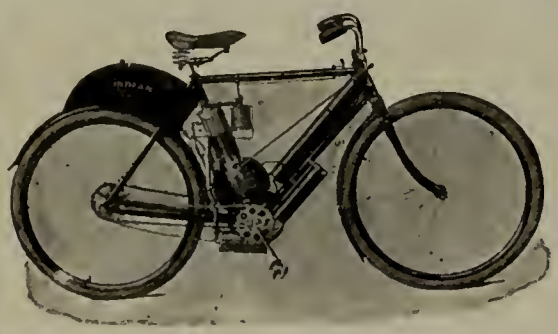

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AN IDEAL RESORT.

The Klamath Hot Springs at Beswick is no less famous for its splendid fishing and hunting advantages than for the superb waters, baths, etc., that have made this resort world-famous. Even at this early date the fishing is phenomenal, daily catches averaging from twenty to thirty 1½ to 3-pound trout per each guest who is at all assiduous in his avocation. And these fish are fighters, every one of them, warriors who will test fully the skill and steel of the most proficient angler. They rise readily to anything, but at this early season show a preference for spoons, minnows, spawn, etc. The run of fish was never greater in the Klamath River and Shovel Creek than at present and the indications are that the fishing will be excellent throughout the whole season.

To any of our friends who are desirous of combining exhilarating sport with the best of accommodations, curative waters and magnificent scenery, we unreservedly recommend Klamath Springs. For full information write to Edson Bros., Beswick, Siskiyou County, Cal.

* * *

FOXHOUNDS OF QUALITY

are the beautiful dogs composing the Lady o' the Lakes Kennel at Corcoran, Cal., and we can personally vouch for their individual excellence. They are not only endowed with marvelous scenting powers, but, what is still more remarkable in dogs of this breed, with indomitable courage, which makes killers of them. Coyotes, wolves, cougars, cats or raccoons, it is all one to these thoroughbred trailers, who never leave the trail till the quarry be found, and who can individually "whip their weight in wildcats" when it comes to the closing moment.

We unhesitatingly recommend these dogs and their proprietors to the consideration of all hound lovers who appreciate high quality in dogs and sterling integrity and courtesy in men. For particulars see Mr. Park's advertisement elsewhere in our pages.

* * *

ALWAYS IN SEASON

are the elegant goods handled by Goldberg, Bowen & Company at their various main and branch stores in this territory. Few people realize the great variety of good things they keep in stock, and it will amply repay any one to carefully inspect their big July catalogue. Here will be found listed everything desirable in the way of dainty and staple comestibles, most of which are especially packed in handy packages for outers, the catering to sportsmen being a specialty of this great concern. There are three "right" things about Goldberg, Bowen & Company: Their goods, their prices and their service to patrons. When preparing for your summer outing, better consult their catalogue; it will mean both satisfaction and economy to you.

* * *

A GOOD THING.

We are in receipt of a sample of the famous Weedless hook, made by the Wagner Weedless Hook Co., 101 West Main street, Jackson, Mich. This device consists of two hooks and a spring which holds them in place; both hooks point inward, the shanks of each protect the point of the other, making the hook what the name implies—Weedless. The points of the hook are lapped over each other when it is locked and when struck by the fish are sprung into position with both barbs pointing outward.

This makes two hooks, effective on either side, with four points of contact. An attack upon this hook is a sure capture.

It is operative in weeds, grass or lily pads, or clear water, and can be used with any kind of bait; the hook unlocks with a gentle pressure and exposes its four sides, which minimizes a fish's chance of escape. It perfectly adjustable and very well made and finished.

MARLIN

THE MAN WHO KNOWS

Uses a **Marlin** Repeating Shotgun because it gets the birds. A gun which combines **Marlin** accuracy with the original **Marlin** solid top and side ejecting features, and which handles stiff smokeless loads the way a **Marlin** does is the gun you want.

The **Marlin** 16 gauge is a new gun and the smallest and lightest (6½ lbs.) made. It is beautifully balanced and handles very fast.

Every **Marlin** Repeating Rifle or Shotgun is worth knowing intimately. Write to-day for our 1904 catalogue (300 illustrations) and our Experience Book, which tells mighty interesting tales of **Marlin** prowess the world over. Free for 3 stamps postage.

THE MARLIN FIRE ARMS CO.,
51 Willow Street, New Haven, Conn.

Peters Loaded Shells

THE AMMUNITION THAT ACHIEVES RESULTS!

EFFECTIVE IN THE HANDS OF AMATEURS AND EXPERTS ALIKE.

SOME RECENT WINNINGS:

SIX out of NINE Missouri-Kansas Inter-State Team Matches
Junction City, Kans., May 3-6 { State Event at Live Birds. State Championship at Targets. Lefever Gun Event.
Americus, Ga., April 27-28..First and Second Amateur Averages. 80 per cent of All Contestants Using Peters Shells.
Columbus, Neb., May 19.....100 Target Event, Score 96.
York, Pa., May 16-21..... { First Amateur Average. Penn. State Championship.

Peters Shells Won the Amateur Championship of the U. S. in 1903.

SUPERIOR IN QUALITY.
BEAUTIFUL IN APPEARANCE.
PERFECT SHOOTING.

THE PETERS CARTRIDGE COMPANY

CINCINNATI, U. S. A.

New York: 98 Chambers Street, T. H. Keller, Manager. Hibbard, Spencer, Bartlett & Co., Chicago, Ill.
Pacific Hardware and Steel Co., San Francisco, Cal.

A PERFECT PRODUCT.

The plain and tandem weedless hooks and bait casting specialties manufactured by the West Weedless Hook Co., Council Bluffs, Iowa, will appeal strongly to Coast fishermen. So called "weedless" hooks are as plentiful as leaves in Vallambrosa, but those among them worthy of any consideration are very few indeed. The West device, however, is absolutely reliable, the spring shield is scientifically made and the hooks are perfect in action. Every bass fisher and bait caster needs a set of these hooks in his kit and we recommend our friends to write for descriptive literature and samples which will be furnished at nominal cost.

* * *

GOOD POWDER AND GOOD SCORES.

The following list of averages reported to us by various correspondents shows that Americans have a plenitude of good powders to choose from when shooting in important events:

Houston, Tex., April 22, Wallace R. Miller, representative of Peters Cartridge Co., 98 out of 100 targets, shooting "E. C." powder in Peters New Target shell.

Providence, R. I., April 23, E. C. Griffith of Pascoag, R. I., first general average, 120 out of 125 targets, run of 64, shooting "Infallible."

Pittsburg, Pa., at Herron Hill Gun Club, April 26 and 27, D. A. Upson of Cleveland, O., first general average, 316 out of 350, shooting DuPont Smokeless. Second high average, F. E. Mallory of Parkersburg, W. Va., 310 out of 350, shooting DuPont Smokeless.

Kalamazoo, Mich., April 26, 27 and 28, J. S. Fanning, first general average, 548 out of 600 targets, shooting "Infallible."

Kansas City., Mo., April 27 to 29, C. M. Powers of Decatur, Ill., first general average, 425 out of 500 from the twenty-one yard mark, shooting "New E. C." Second average, Fred Gilbert of Spirit Lake, Ia., 419 out of 500 from the twenty-two yard mark, shooting DuPont Smokeless.

Kansas City, April 29, C. M. Powers of Decatur, Ill., won "Elliott Individual Cup," 25 straight, from thirty-one yard mark, shooting "New E. C." Second average, Fred Gilbert, 24 out of 25, from the thirty-three yard mark, shooting DuPont Smokeless.

Americus, Ga., April 27 and 28, first general average, C. G. Spencer of St. Louis, Mo., 386 out of 400, shooting DuPont Smokeless. Second general average, Harold Money of Oakland, N. J., 383 out of 400, shooting "E. C." Third general average, Walter Huff of Macon, Ga., 377 out of 400, shooting DuPont Smokeless.

At the same tournament, H. D. Freeman of Atlanta, Ga., first amateur average, 364 out of 400, shooting "New Schultze." Second amateur average, Frank Heidt of Charleston, S. C., 361 out of 400, shooting DuPont Smokeless. Third amateur average, J. M. Napier of Americus, Ga., 358 out of 400, shooting "E. C."

Luverne, Minn., April 28 and 29, C. B. Adams of Rockwell City, Ia., high professional average, 358 out of 400, using "Infallible." First amateur average, W. S. Hoon of Jewell, Ia., 361 out of 400, shooting "Infallible." Second amateur average, Russel Klein of Spirit Lake, Ia., 351 out of 400, shooting DuPont Smokeless. Third amateur average, S. A. Smith of Hartley, Ia., 349 out of 400, shooting DuPont Smokeless.

Franklin, O., May 2, C. A. Young of Springfield, O., first general average, 193 out of 200. Second average, A. W. Kirby and C. F. Miller, 188 out of 200. Third average, Max E. Hensler of Battle Creek, Mich., 185 out of 200. All used DuPont Smokeless.

Franklin, O., May 3, C. O. LeCompte of Eminence, Ky., 99 out of 100, shooting "Infallible," run of 92. Second average, H. N. Kirby, 83 out of 100, using DuPont Smokeless.

Derry, Pa., May 3 and 4, R. S. Deniker, shooting DuPont, and Ed. Hickey, shooting "Infallible," first general average, 329 out of 350. Second average, L. B. Fleming, 327 out of 350, shooting DuPont. May 2, L. J. Squier, 165 out of 175, run of 93, shooting DuPont.

St. Paul, Ind., May 4, C. O. LeCompte, first general average, 141 out of 150, shooting "Infallible." Second average, Max E. Hensler, 140 out of 150, shooting "Infallible." First amateur average, Alonzo Harcourt, 127 out of 150, shooting "Infallible." Second amateur average, Dr. O. Britton, shooting "Infallible" and DuPont, and Geo. N. Kanouse, shooting DuPont, 126 out of 150.

Nashville, Tenn., May 4 and 5, Chas. G. Spencer of St. Louis, first general average, 332 out of 350, shooting DuPont. John Fletcher of Birmingham, Ala., first amateur and second general average, 329 out of 350, run of 62, shooting DuPont.

Junction City, Kan., May 3, 4 and 5, Fred Gilbert, first general average, 515 out of 545, shooting DuPont Smokeless. First amateur average and second general average, C. M. Powers and Ed. Arnold, 505 out of 545, shooting "E. C."

Wabash, Ind., May 4, John S. Boa, first general average, 368 out of 400, shooting "E. C." Second average, J. S. Fanning, 359 out of 400 shooting "Infallible." Third average, J. L. Head, 347 out of 400, shooting DuPont.

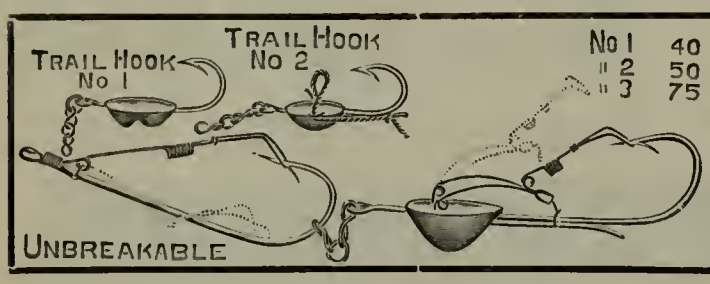
Blenheim, Ontario, May 4, F. H. Conover of Leamington, Ont., first general average, 134 out of 150. First amateur and second general averages, William Hollingshead, 130 out of 150. Second amateur and third general averages, W. E. Hall, 129 out of 150. All shot DuPont Smokeless.

Bowling Green, Ky., May 6 and 7, Chas. G. Spencer, first general average, 340 out of 350, run of 128, on May 6, shooting DuPont Smokeless. Second average, Harold Money, 332 out of 350, shooting "E. C." and "Infallible." Third average, Frank Reihl, 331 out of 350, shooting "E. C." and "Infallible." Fourth average, C. O. LeCompte, 324 out of 350, shooting "Infallible." First amateur average, W. A. Baker, 317 out of 350, shooting "E. C." Second amateur average, Gentry Hillman, 315 out of 350, shooting "Infallible." Third amateur average, P. C. Ward, 310 out of 350, shooting "Infallible."

* * *

COMMENDABLE ENTERPRISE.

On Wednesday last the Fish Commission delivered to the North Shore Railroad 50,000 Quinnat salmon for distribution in the Paper Mill Creek and Russian River. The North Shore agents took charge of the fish and placed them in the streams with no apparent loss. These fish make for the sea and return to spawn in a year or two, so that in addition to the bass, steelhead and trout fishing in these streams, which has been unusually good this season, the sportsmen may expect good results from the latest action of the enterprising North Shore in planting these salmon. The same railroad distributed over 100,000 young trout last year in the Austin, Ward, Salmon and Lagunitas Creeks and Russian and Gualala Rivers and trout fishing is therefore plentiful this summer.



No 1 40
" 2 50
" 3 75

BAIT CASTING Specialties

Weedless Hooks, Frog and Minnow Holders that will take a dozen fish to one frog. No swivels needed. Weedless lasting spoons. Money back if you can't see it in the goods. Circulars.

West Weedless Hook Co., Council Bluff, Ia.

Pat. applied for. 12 AND 14 PEARL ST.

BAIT CASTING LINE QUESTION SOLVED.

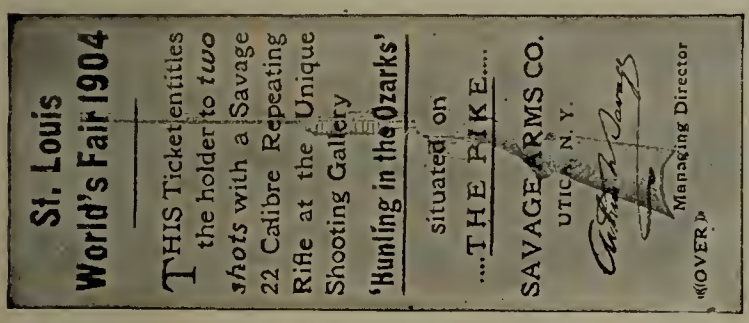
It is an established fact that the "Talbot" Fishing Reels are among the best ever put on the market. The Wm. H. Talbot Co.'s Bait Casting Lines also have that distinction.

Practical tests show that this line will cast as well wet as dry. It is impossible to kink; is the smallest line for strength and is made of the finest quality selected and tested silk. It is not treated with oil, wax or any other preparation, and so is very pliable and all that could be desired in casting as well wet as dry. The secret is in the weave of the line. A wet line has always been the bane of the angler's casting; most tests have been along the line of stopping water-logging by waxing or oiling the line. The remedy in this way caused a greater evil in casting a necessarily stiff line and hence was not a success. The President of a silk line factory entered into the Talbot plan of solving the question in the weave. After a year's test the factory has given them a line which will be hailed with delight by all good anglers. We have personally tested these lines on the streams and give them our unqualified recommendation. Equipped with an outfit of "Talbot" reel and rod—for they make magnificent rods also—and one of these splendid lines, a day's perfect enjoyment on any California stream is an assured success. For a copy of the beautiful Talbot catalogue describing all sorts of special fishing paraphernalia, address Wm. H. Talbot Co., Nevada, Mo., mentioning Western Field.

* * *

WORLD'S FAIR TICKETS FREE.

We illustrate herewith a reproduction of a ticket that the Savage Arms Company are distributing at the St. Louis World's Fair. The Savage .22 caliber repeating rifle was exclusively adopted for the Exposition. The rifle certainly deserves this, as it is a clean-cut little gun, shooting the best of the .22 ammunition. Mention Western Field and a nicely illustrated catalogue will be sent you, together with two or three of the tickets above referred to. If you contemplate a trip to St. Louis it is well worth your time to write the Savage Arms Company



at Utica, N. Y. This company's very handsome exhibit is in the Manufacturers' Building, space 9 B. Every sportsman should take the opportunity to see the beautiful line of rifles that are on exhibition there. These are attracting world-wide attention for their quality of workmanship.

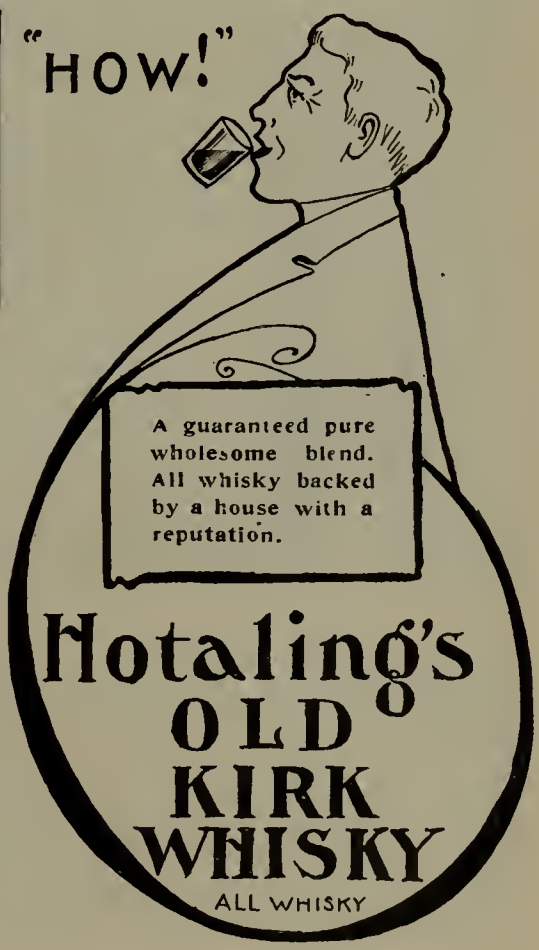
* * *

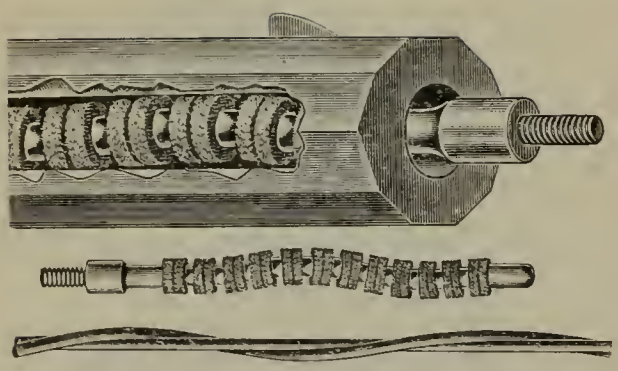
YOU WILL WANT THIS.

All up-to-date riflemen will need the excellent "Garrison" rifle cleaner, illustrated herewith, made by the Marble Safety Axe Co., Gladstone, Mich.

The principle of construction is a spirally-bent spring-tempered wire with section of very soft brass wire gauze washers separated by soft metal washers. The brass gauze brushes are a little smaller than the bore of the rifle they are intended to clean and in pushing the cleaner through the barrel the spring of the wire core forces the brass gauze brushes firmly against the entire circumference of the bore of rifle, thus removing spots of lead, burnt powder, or rust.

This cleaner solves the problem of the perfect and rapid cleaning of smokeless powder rifles with but very little expenditure of time and en-





ergy. The residue of smokeless powder deposited with such force against the bore of the gun makes its removal almost impossible with cloth patch or ordinary wire brush; but it yields readily to the strong pressure applied by the spring-tempered core of this cleaner. The fact that one Garrison cleaner will outwear at least two dozen ordinary wire brushes makes it a money as well as a labor saver.

It is made for all caliber rifles. The threaded end is made to fit the large or small sockets of all Marble rifle rods. The small ends will fit the small threaded sockets of other makers' rods.

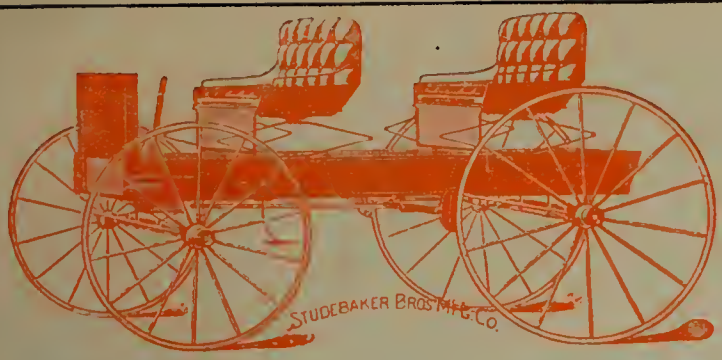
A SHOOTING MARVEL.

The above cut represents Mr. Charles Baird, of Marysville, Cal., who is the only known shooter of his kind in the world. Through an unfortunate accident in a threshing machine about ten years ago Mr. Baird lost his right arm close to the shoulder and his left just below the elbow. The gentleman was first brought before the shooting public's notice by John Steward and W. H. Seaver at the Colusa tournament last April and again at the late Sacramento shoot. At both of these tournaments Mr. Baird gave exhibitions of his shooting to the admiration of large crowds. The gun Mr. Baird uses a Winchester "pump", is especially equipped with straps, metal holders, trigger pulling lever, and other devices to fit his requirements, and the way he handles the gun and shoots both single and double targets is a most wonderful sight. Mr. Baird's best record at single targets, known traps, unknown angles, is 46 out of the possible 50, and at double targets 16 out of the possible 20. Such shooting is considered to be first class by shooters not handicapped like Mr. Baird is, but when it is taken into consideration the adverse conditions under which the gentleman shoots, his work with the gun is nothing less than marvelous.

AN ENTERPRISING CONCERN.

An enterprise which is bound to succeed is that conducted by the Wharf Fish and Tackle Co., of Ocean Park, Cal., a cut of whose place of business we present herewith. The firm is composed of Messrs. Herzog and Grindlay, both of whom are well known to Western Field readers. Mr. Herzog was formerly in the fish, game and poultry business in Los Angeles, being the first party to open the Mott Market, and afterward went into partnership with Fred Harriman in the L. A. Fishing Co. He is well known throughout Southern California as a thorough market man and has a host of friends. As secretary of the L. A. Co. Game and Fish Protective Association and agent for the Western Field, Mr. Herzog has rendered most valuable service in the protection of game and in the advancement of California's sportsmen's best interests. Mr. Grindlay is well known in golf circles, having laid out the links of the L. A. Country Club, and was employed for four years as instructor. Several other links were also laid out by Mr. Grindlay.

We wish him and his partner unbounded success in their new enterprise.



We can send you in our catalogue more illustrations of Buckboards, Hunting Wagons and Country Club Wagons than you can get in any other way.

The first Studebaker vehicle was made by Mr. J. M. Studebaker in Hangtown, California, in 1854. There are more than forty thousand in the State now.

STUDEBAKER BROS. COMPANY
OF CALIFORNIA.

Market and Tenth Sts.
SAN FRANCISCO

LET US SEND CATALOGUE

RESULTS COUNT

Out of 56 contestants in the 10th Annual Tournament of the Washington State Sportsman's Association, May 21st,

32

USED U. M. C. SHELLS AND WON

Longest continuous run of 74 straight. High Average for Three Days Shoot. Three Man Team Championship. The "Sportsman's Review" Gold Medal.

U. M. C. Popularity Ever Increaseth

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Pacific Coast Agency 127-135 FIRST STREET, SAN FRANCISCO

A MULLER, Agent